

*The lexicon of Proto Oceanic:
the culture and environment of
ancestral Oceanic society
4: Animals*

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4: Animals

edited by
Malcolm Ross, Andrew Pawley and Meredith Osmond



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Contents overview

Chapter contents in detail		vii
List of Tables		xvii
List of Figures		xix
List of maps		xxii
Abbreviations		xxiii
Acknowledgments		xxiv
Chapter 1	Introduction Malcolm Ross, Andrew Pawley and Meredith Osmond	1
Chapter 2	Fish Meredith Osmond	25
Chapter 3	Stability and change in Oceanic fish names Andrew Pawley	137
Chapter 4	Aquatic invertebrates Andrew Pawley	161
Chapter 5	Mammals, reptiles, amphibians Meredith Osmond and Andrew Pawley	217
Chapter 6	Birds Ross Clark	271
Chapter 7	Insects and other creepy-crawlies Meredith Osmond	371
Chapter 8	Were turtles fish in Proto Oceanic? Semantic reconstruction and change in some terms for animal categories in Oceanic languages Andrew Pawley	421

Appendix A	Data sources and collation	453
Appendix B	Languages	457
References		489
Index of reconstructions by protolanguage		511
Alphabetical index of reconstructions		533
Index of English and biological terms		557

Chapter contents in detail

Contents overview	v
List of Tables	xvii
List of Figures	xix
List of maps	xxii
Abbreviations	xxiii
Acknowledgments	xxiv
1 Introduction	1
1 Aims	1
2 The relation of the current project to previous work	3
3 Reconstructing the lexicon	4
3.1 Terminological reconstruction	5
3.2 Subgrouping and reconstruction	6
3.2.1 Subgrouping	6
3.2.2 Kinds of subgroup	7
3.2.3 Further notes on subgroups	10
3.2.4 Criteria for reconstruction	12
3.3 Sound correspondences	14
3.4 POc phonology and orthography	16
4 Conventions common to the series	17
4.1 Presentation of reconstructions	17
4.2 Data	20
4.3 Conventions used in representing reconstructions	21
5 Indexes	23
2 Fish	25
1 Introduction	25
2 Organisation	27
3 Fish (generic)	28
4 Sharks: Carcharhinidae, Sphyrnidae etc	29
5 Rays: stingrays (Dasyatidae), eagle rays (Myliobatidae), manta rays (Mobulidae)	34

6	Bonefishes (Albulidae) and tarpons (Elopidae, formerly Megalopidae)	36
7	Sardines and herrings (Clupeidae) and anchovies (Engraulidae)	37
8	Milkfishes (Chanidae)	40
9	Lizardfishes (Synodontidae)	41
10	Catfish (Plotosidae)	42
11	Eels	43
11.1	Freshwater eels (Anguillidae)	43
11.2	Morays (Muraenidae)	44
11.3	Pike eels (Muraenesocidae) and congers (Congridae)	45
11.4	Snake eels (Ophichthidae)	46
11.5	Other terms for eels	46
12	Flying fishes (Exocoetidae)	48
13	Half beaks and garfishes (Hemiramphidae), needlefishes and long toms (Belonidae)	49
14	Squirrelfishes, soldierfishes (Holocentridae)	53
15	Trumpetfishes (Aulostomidae), cornetfishes and flutemouths (Fistulariidae) .	55
16	Pipefishes, sea horses (Syngnathidae)	56
17	Razorfishes (Centriscidae)	57
18	Mulletts (Mugilidae)	57
19	Silversides, hardyheads (Atherinidae)	60
20	Barracudas, sea-pikes (Sphyrænidae)	61
21	Sand basses, giant perches, barramundis (Centropomidae (Munro: Latidae)) .	64
22	Rock cods, reef cods, coral cods, groupers etc. (Serranidae)	64
23	Flagtails (Kuhliidae)	67
24	Bigeyes, bullseyes (Priacanthidae)	67
25	Cardinalfishes (Apogonidae)	68
26	Jacks, trevallies, scads, horse mackerels, kingfishes, darts, rainbow runners and leatherskins (Carangidae)	68
27	Dolphinfishes (Coryphaenidae)	73
28	Ponyfishes, slimys (Leiognathidae)	74
29	Fusiliers (Caesionidae)	74
30	Snappers or sea-perch, basses, jobfishes (Lutjanidae)	74
31	Monocle breams, threadfin breams, sea breams, butterfly breams (Nemipteridae)	79
32	Threadfins (Polynemidae)	79
33	Mojarras, silver biddies (Gerreidae)	79
34	Sweetlips, javelinfishes (Haemulidae, formerly Plectorhynchidae and Pomadasyidae)	80
35	Grunters, terapon perches (Teraponidae)	80
36	Emperors and large-eyed breams (Lethrinidae)	81
37	Goatfishes (Mullidae)	84
38	Sweepers (Pempheridae)	87
39	Drummers, rudderfishes (Kyphosidae)	87
40	Silver batfishes, diamondfishes (Monodactylidae)	88
41	Batfishes (Ephippidae (formerly Platacidae))	88
42	Butterflyfishes, coralfishes (Chaetodontidae)	89
43	Angelfishes (Pomacanthidae)	90

44	Damselfishes or demoiselles, anemonefishes, sergeant-majors, pullers (Pomacentridae)	90
45	Hawkfishes (Cirrhitidae)	91
46	Wrasses, tuskfishes (Labridae)	92
47	Parrotfishes (Scaridae)	95
48	Sandperches, Grubfishes (Pinguipedidae, and also Mugiloididae, Parapercidae)	99
49	Gobies, including mudskippers (Gobiidae), blennies (Blenniidae)	99
50	Sleepers, gudgeons (Eleotridae)	100
51	Whitebait	100
52	Flatheads (Platycephalidae)	100
53	Moorish idols (Zanclidae)	100
54	Unicornfishes, surgeonfishes, bristletooths, tangs (Acanthuridae)	101
55	Rabbitfishes, spinefeet (Siganidae)	108
56	Snake mackerels, oilfishes (Gempylidae)	110
57	Skipjacks, Spanish mackerels, mackerels, tunas, tunnies, albacores, wahoos (Scombridae)	111
58	Marlins and sailfishes (Istiophoridae); swordfishes (Xiphiidae)	116
59	Flounders and soles: left-eye flounders (Bothidae), toothed flounders (Paralichthyidae), right-eye flounders (Pleuronectinae), soles (Soleidae)	117
60	Stonefishes (Synanceiidae)	119
61	Triggerfishes (Balistidae); filefishes and leatherjackets (Monacanthidae)	120
62	Boxfishes, trunkfishes, cowfishes (Ostraciidae)	123
63	Puffers, toadfishes and blowfishes (Tetraodontidae); porcupinefishes and balloonfishes (Diodontidae)	125
64	Flying gurnards (Dactylopteridae)	128
65	Remoras (Echeneididae)	128
66	Fish parts	129
66.1	Roe	129
66.2	Gills	129
66.3	Scales	131
66.4	Fins	132
66.5	Fish gullet	134
66.6	Barb of stingray	135
67	Conclusion	135
3	Patterns of stability and change in Oceanic fish names	137
1	Introduction	137
1.1	On the distribution of fish families, genera and species in the Pacific	138
1.2	The location and dating of Proto Oceanic	138
2	Methodological preliminaries	139
2.1	Data sources	139
2.2	On taxonomies and nomenclatures	139
2.2.1	Folk taxonomies	139
2.2.2	Uninomials vs binomials	140
2.3	On counting the units in a taxonomy	140
2.4	Semantic reconstruction	141

2.5	On formulating hypotheses about whether fish names show similar retention rates to basic vocabulary	141
3	Retention rates for POC fish names	143
3.1	Investigating retention rates for a sample of POC fish names	143
3.2	Some fish names are as persistent as some basic vocabulary items	149
3.3	Retention rates of names by families or higher-order groups	150
3.4	Variation in retention rate among languages in the sample	151
4	Estimating the size of the Proto Oceanic lexicon of fish names	152
4.1	Introduction	152
4.2	Estimating absolute numbers of names	153
4.3	Number and ratio of uninomials to binomials	153
4.4	Comparison of number of fish names family by family	154
5	Where have all the fish names gone?	159
4	Aquatic invertebrates	161
1	Introduction	161
2	Classification of marine invertebrates	163
2.1	Zoological classification	163
2.2	Oceanic folk taxonomies of aquatic invertebrates	164
3	Crustaceans	165
3.1	Order Decapoda: crabs, lobsters, prawns	165
3.2	Palinura: spiny lobsters	166
3.2.1	Palinuridae, spiny lobsters	167
3.2.2	Scyllaridae, slipper (or shovel-nosed) lobsters	167
3.3	Suborder Natantia: true prawns and shrimps	168
3.4	Suborder Anomura: hermit crabs, mud lobsters, half-crabs	168
3.4.1	Paguroidea: Coenobitidae (hermit and coconut crabs), and Diogenidae and Paguridae (sea-dwelling hermit crabs)	168
3.4.2	<i>Birgus latro</i> , coconut crab	168
3.4.3	Hermit crabs	170
3.4.4	Other Anomura: Thalassina, mud lobsters, and Porcellanidae, porcelain crabs (half-crabs)	171
3.5	Brachyura: true crabs	171
3.5.1	Portunidae, mangrove and swimming crabs	172
3.5.2	<i>Cardisoma</i> spp. and other large land crabs	173
3.5.3	Grapsidae, (1) shore crabs, (2) burrowing crabs of mud flats	174
3.5.4	<i>Sesarma</i> spp., mangrove grapsids	174
3.5.5	Ocypodidae long-stalked crabs (ghost crabs fiddler crabs soldier crabs)	176
3.5.6	Crabs of uncertain family and families lacking reconstructed names	177
3.5.7	Xanthoidea	178
3.6	Generic terms for crabs	178
3.7	Other crustaceans	179
3.7.1	Mantis shrimps (order Stomatopoda)	179
3.7.2	Barnacles (class Cirripedia, order Thoracia)	179
3.8	Growth stages and sexes of crustaceans	179

3.9	Body parts of crustaceans	179
4	Molluscs	180
4.1	Molluscs as a resource in Oceanic communities	180
4.2	Class Gastropoda: univalves	181
4.2.1	Strombidae, strombs, spiders, conches	181
4.2.2	Turbinidae, turbans	182
4.2.3	<i>Turbo petholatus</i>	182
4.2.4	Other <i>Turbo</i> taxa	183
4.2.5	Cymatiidae, tritons	183
4.2.6	Neritidae, nerites, and allied families of Neritacea	184
4.2.7	Cypraeidae (cowries) and Ovulidae (egg and spindle cowries)	185
4.2.8	Trochidae, top shells	186
4.2.9	Conidae, cone shells	187
4.2.10	Muricidae, murexes	188
4.2.11	Gastropod families lacking POc names	188
4.2.12	Generic terms for gastropods	188
4.3	class Bivalvia: clams, cockles, oysters, etc.	188
4.3.1	Tridacninae, giant clams	189
4.3.2	<i>Asaphis</i> spp. (Psammobidae) and cockles (Cardiidae)	190
4.3.3	Mytilidae, mussels	192
4.3.4	Ostreidae, rock oysters	192
4.3.5	Pteridae, pearl and wing oysters, and Malleidae, hammer oysters	193
4.3.6	Pinnidae, pen shells	195
4.3.7	Lucinidae and allied families	195
4.3.8	Reconstructions for bivalves of uncertain family	196
4.3.9	Bivalve families lacking definite POc reconstructions	197
4.3.10	Generic term for bivalves	197
4.4	Polyplacophora: chitons	197
4.5	A term for shellfish in general	198
4.6	Cephalopoda: octopus, squid, nautilus	198
4.6.1	Octopus	198
4.6.2	Squid and cuttlefish	199
4.7	Parts of molluscs	201
4.8	Artefacts made from shell	202
5	Echinodermata: sea urchins, sea cucumbers, starfish, etc.	202
5.1	Echinoidea: sea urchins	202
5.1.1	<i>Echinometra</i> spp., rock-boring urchins	202
5.1.2	Long-spined sea urchins	203
5.2	Holothuroidea: sea cucumbers (bêche de mer, trepang, holothurians)	204
5.2.1	Terms for specific taxa	204
5.2.2	General term for sea cucumbers	206
5.3	Asteroidea: sea stars and Ophiuroidea: starfish	206
6	Cnidaria and Ctenophora: anemones, corals, jellyfish and hydroids	207
6.1	Anemones	207
6.2	Corals	208

6.3	Scyphozoa, Ctenophora and Hydrozoa: true jellyfish, comb jellyfish and hydroids	209
7	Annelida: worms	210
7.1	<i>Sipunculus</i> sp., sandworm	210
7.2	Fireworms (Polychaeta)	211
7.3	Palolo worm (<i>Eunice viridis</i> , aka <i>Palola viridis</i> , <i>Leodis viridis</i>)	212
8	Poriphera: sponges	213
9	What proportion of POC taxa have been reconstructed?	213
5	Mammals, reptiles, amphibians	217
1	Introduction	217
2	Indigenous terrestrial mammals	220
2.1	Introduction	220
2.2	Macropodidae	221
2.2.1	Wallabies (Genera <i>Dorcopsis</i> , <i>Dorcopsulus</i> , <i>Macropus</i> , <i>Thylogale</i>)	221
2.2.2	Tree kangaroos (Genus <i>Dendrolagus</i>)	223
2.3	Cuscuses (Phalangeridae)	224
2.4	Other possum families (Acrobatidae, Burramyidae, Petauridae, Pseudocheiridae)	226
2.5	Bandicoots (Peroryctidae)	227
2.6	Marsupial carnivores (Dasyuridae)	229
2.7	Echidnas (Tachyglossidae)	229
2.8	Rats (Muridae)	229
2.9	Bats (Order: Chiroptera, Suborders Megachiroptera, Microchiroptera)	234
3	Introduced terrestrial mammals	237
3.1	Pigs (genus <i>Sus</i> , family Suidae)	237
3.2	Dogs (<i>Canis</i> sp.)	240
4	Aquatic mammals	243
4.1	Cetaceans	243
4.1.1	Whales	243
4.1.2	Dolphins (Delphinidae)	245
4.2	Dugong (<i>Dugong dugon</i>)	246
5	Reptiles	247
5.1	Marine turtles (Cheloniidae)	247
5.2	Crocodiles (Crocodylidae)	251
5.3	Lizards	253
5.3.1	Introduction	253
5.3.2	Monitors (Varanidae)	253
5.3.3	Iguanas (Iguanidae)	255
5.3.4	Geckos (Gekkonidae)	256
5.3.5	Skinks (Scincidae)	257
5.3.6	Indeterminate kinds of lizards	258
5.4	Snakes (sub-order Serpentes)	259
5.4.1	Land snakes	259
5.4.2	Sea snakes (Elapidae)	261
6	Amphibians	262

7	Body parts	265
7.1	Mammal body parts	265
7.1.1	Canine tooth	266
7.1.2	Pig tusk	266
7.1.3	Tail	267
7.2	Reptile body parts	268
7.2.1	Turtle shell	268
7.2.2	Gaps in reconstruction	268
6	Birds	271
1	Introduction	271
2	The life and parts of birds	273
3	Bird names	282
4	The domestic bird: <i>Gallus gallus</i>	283
5	Non-passerine land and fresh water birds	287
5.1	Cassowaries (Casuariidae)	287
5.2	Herons (Ardeidae)	288
5.3	Ducks (Anatidae)	293
5.4	Diurnal raptors (Pandionidae, Accipitridae, Falconidae)	296
5.4.1	Fish-eating raptors (<i>Pandion</i> , <i>Haliaeetus</i> , <i>Haliastur</i>)	296
5.4.2	Other raptors	300
5.5	Megapodes (Megapodiidae)	304
5.6	Pheasants and quails (Phasianidae)	306
5.7	Rails (Rallidae)	307
5.8	Pigeons and doves (Columbidae)	310
5.8.1	Imperial Pigeons (<i>Ducula</i>)	312
5.8.2	Fruit Doves (<i>Ptilinopus</i>)	315
5.8.3	Ground-feeding pigeons	316
5.8.4	Other species	317
5.9	Parrots (Loriidae, Cacatuidae, Psittacidae)	320
5.9.1	Cockatoos	321
5.9.2	The Eclectus Parrot	321
5.9.3	Middle-sized parrots	324
5.9.4	Small parrots	326
5.9.5	Other parrot species	327
5.10	Cuckoos (Cuculidae)	329
5.11	Owls (Tytonidae, Strigidae)	330
5.12	Swifts and swallows (Apodidae, Hemiprocnidae, Hirundinidae)	333
5.13	Kingfishers (Alcedinidae)	336
5.14	Rollers (Coraciidae)	339
5.15	Hornbills (Bucerotidae)	339
6	Passerine birds	341
6.1	Trillers and cuckoo-shrikes (Campephagidae)	341
6.2	Thrushes (Turdidae)	342
6.3	Fantails (Rhipiduridae) and flycatchers (Monarchidae)	343
6.3.1	Fantails	343

6.3.2	Flycatchers	345
6.4	Whistlers (Pachycephalidae)	345
6.5	Whiteeyes (Zosteropidae)	345
6.6	Honeyeaters (Meliphagidae)	346
6.7	Starlings (Sturnidae)	348
6.8	Wood swallows (Artamidae)	349
6.9	Crows (Corvidae)	350
7	Sea and shore birds	352
7.1	Petrels (Procellariidae, Hydrobatidae)	352
7.2	Tropic-birds (Phaethontidae)	353
7.3	Boobies (Sulidae)	355
7.4	Frigate birds (Fregatidae)	357
7.5	Waders (Charadriidae, Scolopacidae, Burhinidae)	359
7.6	Terns (Laridae)	365
7	Insects and other creepy-crawlies	371
1	Introduction	371
2	Lice (Order Anoplura: Family Pediculidae)	373
2.1	Head lice	374
2.2	Body lice	375
2.3	Nits	375
2.4	Search head for lice	377
3	Butterflies (Order Lepidoptera)	377
4	Mosquitoes (Order Diptera: Family Culicidae)	380
5	Sandflies, midges, gnats (Order Diptera: Families Chironomidae (non-biting), Ceratopogonidae, Psychodidae, Simuliidae (biting); Families Drosophilidae, Tephritidae (fruit flies))	383
6	Flies (Order Diptera: Families Muscidae (houseflies, bluebottles), Tabanidae (horseflies), Bibionidae (March flies))	385
6.1	Flies (generic); houseflies	385
6.2	Horseflies and March flies	386
7	Dragonflies and damselflies (Order Odonata)	386
8	Bees (Order Hymenoptera : Super Family Apoidea)	387
9	Wasps (Order Hymenoptera): Families Ichneumonidae, Vespidae (paper wasp), Sphecidae (mud-dauber wasp, mason wasp)	388
10	Ants (Order Hymenoptera: Family Formicidae)	390
11	Termites (Order Isoptera)	394
12	Crickets, grasshoppers (Order Orthoptera); Cicadas (Order Hemiptera)	395
13	Mantises (Order Mantodea), stick insects (Order Phasmatodea)	397
14	Fireflies (Order Coleoptera: Family Lampyridae)	399
15	Beetles (Order Coleoptera)	400
16	Cockroaches (Order Blattodea)	402
17	Grubs, caterpillars	403
18	Centipedes (Class Chilopoda): Millipedes (Class Diplopoda)	406
19	Scorpions (Class Arachnida: Order Scorpiones)	408
20	Spiders (Order Araneae)	408

21	Leeches (Class Hirudinea)	411
22	Worms	412
22.1	Worm (generic)	412
22.2	Other worm taxa	413
23	Maggots	414
24	Unspecified flying insect	416
25	Semantic extensions and generalisations	416
26	Stability and variability of terms	418
27	The supernatural element	419
8	Were turtles fish in Proto Oceanic? Semantic reconstruction and change in some terms for animal categories in Oceanic languages	421
1	Introduction	421
1.1	Aims	421
1.2	Methodological preliminaries	422
1.2.1	What are taxonomies?	422
1.2.2	Defining natural kinds	423
1.2.3	The taxonomic ranks and naming principles proposed by Berlin (1992)	423
1.2.4	Taxonomic generics vs collectives	425
1.2.5	Problems inherent in the semantics of generics	426
1.2.6	A modest objective	427
1.2.7	Shortcomings of dictionary definitions	427
2	POc <i>*ikan</i>	428
2.1	Introduction	428
2.2	Reflexes of <i>*ikan</i>	429
2.2.1	Central Pacific	429
2.2.2	Micronesian	432
2.2.3	Southeast Solomonic and Northwest Solomonic	433
2.2.4	Vanuatu	433
2.2.5	The Admiralties	434
2.2.6	Western Oceanic	435
2.3	Proto Oceanic <i>*ikan</i> 1 and <i>*ikan</i> 2	436
3	POc <i>*pinaŋoda</i>	437
4	POc <i>*sisiq</i>	439
5	POc <i>*manuk</i>	443
5.1	Introduction	443
5.2	Variation in semantic scope of reflexes of <i>*manuk</i>	444
5.2.1	Polynesian	444
5.2.2	Rotuman and Fijian	446
5.2.3	Micronesian	446
5.2.4	Other Oceanic groups	447
5.3	Flying creatures only or land creatures in general?	449
6	POc <i>*manu-manuk</i>	450
6.1	Reflexes of POc <i>*manu-manuk</i> in Papuan Tip, SE Solomonic and Polynesian	450

6.2	What did POc <i>*manu-manuk</i> mean?	451
7	Conclusions	452
Appendix A Data sources and collation		453
1	Data sources	453
1.1	General sources	453
1.1.1	Published sources	453
1.1.2	Unpublished sources	455
2	Collation	456
Appendix B Languages		457
1	Introduction	457
2	Languages by subgroups	457
3	Language finderlist	470
References		489
Index of reconstructions by protolanguage		511
Alphabetical index of reconstructions		533
Index of English and biological terms		557

List of Tables

1.1	Reconstructed paradigm of POc phonemes	16
1.2	POc orthographies after Grace (1969) and Ross (1988)	17
1.3	Abbreviations for the genealogical or geographic groups	19
1.4	Bracketing and segmentation conventions in protoforms	22
3.1	Details of languages cited (all Oceanic except Palauan and Pendau)	140
3.2	Presence/absence of reflexes of POc fish names in twelve languages (1)	144
3.3	Presence/absence of reflexes of POc fish names in twelve languages (2)	145
3.4	Presence/absence of reflexes of POc fish names in twelve languages (3)	146
3.5	Presence/absence of reflexes of POc fish names in twelve languages (4)	147
3.6	Retention rates for 52 Proto Oceanic fish names	148
3.7	Retention rates in PCP and PPn for fish names by families/groups	150
3.8	Retention rates by language for 52 POc fish names	151
3.9	Total recorded fish names in 12 Oceanic languages	152
3.10	Uninomials and binomials in 11 contemporary Oceanic languages and in POc, PCP and PPn	153
3.11	Grouper, rock cod, coral cod (Serranidae); trevally and jacks (Carangidae)	154
3.12	Wrasses (Labridae); parrotfish (Scaridae)	154
3.13	Goatfish (Mullidae); mullet (Mugilidae)	155
3.14	Mackerels and tuna (Scombroidei); marlin and swordfish (Xiphiidae)	155
3.15	Surgeonfish/unicornfishes (Acanthuridae); rabbitfish (Siganidae)	156
3.16	Squirrelfish/soldierfish (Holocentridae); triggerfish (Balistidae) and leatherjackets (Aluteridae incl. Monacanthidae)	156
3.17	Snapper, sea-perch, bass (Lutjanidae); emperors (Lethrinidae); sweetlips and grunthers (Plectorhynchidae)	156
3.18	Sharks and rays	157
3.19	Eels (Anguilliformes); barracuda (Sphyrnaeidae)	157
3.20	Sardines and herrings (Clupeidae); milkfish (Chanidae); silversides/hardyheads (Atherinidae)	158
3.21	Scorpionfish (Scorpaenidae) and stonefish (Synanceia)	158
3.22	Blennies (Blennidae), gobies (Gobiidae) and mudskippers (Periopthalmidae)	158
4.1	Some high-order aquatic invertebrate taxa in Wayan	165
4.2	Terms for aquatic invertebrate groups known for Wayan and Proto Oceanic	214
8.1	Implicational scale of types that may be included in reflexes of *ikan	429

8.2	Semantic range of reflexes of <i>*ikan</i> in Central Pacific languages	431
8.3	Semantic range of <i>*ikan</i> in PPn and PCP	431
8.4	Semantic range of <i>*ikan</i> in Micronesian languages	432
8.5	Semantic range of <i>*ikan</i> in Solomon Islands languages	433
8.6	Semantic range of ‘fish’ terms in Vanuatu languages	434
8.7	Semantic range of <i>*ikan</i> in Admiralties languages	435
8.8	Semantic range of <i>*ikan</i> in Papuan Tip languages	435
8.9	Implicational scale of types that may be included in reflexes of <i>*sisiq</i>	442
8.10	Semantic range of reflexes of <i>*sisiq</i> in Oceanic languages	442
8.11	Implicational scale of types that may be included in reflexes of <i>*manuk</i>	443
8.12	Semantic range of reflexes of POc <i>*manuk</i> in some Polynesian languages	445
8.13	Semantic range of reflexes of PCP <i>*manu-manu</i> in Rotuman and Fijian languages	446
8.14	Semantic range of reflexes of POc <i>*manuk</i> in some Micronesian languages	447
8.15	Semantic range of reflexes of POc <i>*manuk</i> in some Oceanic languages other than Nuclear Micronesian and Central Pacific	449
8.16	Implicational scale of types that may be included in reflexes of <i>*manu-manuk</i>	451

List of Figures

1.1	Higher-order subgroups of Austronesian languages	7
1.2	Subgrouping of Oceanic languages	8
2.1	<i>Carcharodon carcharias</i> , great white shark	30
2.2	<i>Aetobatis narinari</i> , spotted eagle ray	34
2.3	<i>Spratelloides delicatulus</i> , small round herring	37
2.4	<i>Plotosus lineatus</i> , striped eel catfish	42
2.5	<i>Gymnothorax</i> sp., barred moray eel	45
2.6	<i>Myrichthys colubrinus</i> , harlequin snake eel	47
2.7	<i>Exocoetus volitans</i> , blue flying fish	48
2.8	<i>Hemiramphus lutkei</i> , Lutke's halfbeak	50
2.9	<i>Tylosurus crocodilus crocodilus</i> , giant long tom	52
2.10	<i>Myripristis murdjan</i> , crimson squirrelfish, and <i>Sargocentron spiniferum</i> , armoured soldierfish	54
2.11	<i>Fistularia commersonii</i> , smooth flutemouth	56
2.12	<i>Mugil cephalus</i> , flathead grey mullet	57
2.13	<i>Sphyræna jello</i> , slender sea pike	62
2.14	<i>Epinephelus lanceolatus</i> , Queensland grouper	68
2.15	<i>Gnathanodon speciosus</i> , golden trevally, and <i>Alectis indica</i> , plumed trevally .	69
2.16	<i>Coryphaena hippurus</i> , common dolphinfish	73
2.17	<i>Lutjanus fulviflamma</i> , Dory snapper	75
2.18	<i>Lethrinus variegatus</i> , variegated emperor	81
2.19	<i>Parupeneus signatus</i> , black-spotted goatfish	84
2.20	<i>Kyphosus cinerascens</i> , ashen drummer	87
2.21	<i>Chaetodon</i> sp., coralfish	89
2.22	<i>Adudefduf</i> sp., sergeant-major	90
2.23	<i>Cheilinus undulatus</i> , double-headed Maori wrasse	92
2.24	<i>Bolbometopon muricatum</i> , double-headed parrotfish	95
2.25	<i>Naso unicornis</i> , long-snouted unicornfish	101
2.26	<i>Zebrasoma veliferum</i> , sailfin tang, and <i>Acanthurus lineatus</i> , blue-lined surgeonfish	104
2.27	<i>Siganus punctatus</i> , gold-spotted spinefoot	108
2.28	<i>Katsuwonus pelamis</i> , skipjack tuna	111
2.29	<i>Scomberomorus commerson</i> , Spanish mackerel	113
2.30	<i>Istiophorus platypterus</i> , Pacific sailfish	116

2.31	<i>Synanceia verrucosa</i> , reef stonefish	119
2.32	<i>Monacanthus</i> sp., scribbled leatherjacket	121
2.33	<i>Ostracion nasus</i> , shortnosed boxfish	124
2.34	<i>Arothron leopardus</i> , leopard pufferfish	126
2.35	<i>Remora remora</i>	128
4.1	<i>Palinurus</i> sp., spiny lobster	166
4.2	<i>Birgus latro</i> , coconut crab	169
4.3	<i>Scylla serrata</i> , mangrove crab	172
4.4	<i>Lambis</i> spp., spider conches	182
4.5	Cowries	186
4.6	Univalve shells: turban, trochus, cone, murex	189
4.7	<i>Tridacna gigas</i> , giant clam	189
4.8	Octopus	199
4.9	Squid	202
4.10	<i>Physalis</i> sp., Portuguese man o' war	209
5.1	<i>Dendrolagus dorianus</i> , Doria's tree kangaroo	223
5.2	<i>Spiloglossus maculatus</i> , spotted cuscus	225
5.3	<i>Petaurus brevipes</i> , sugar glider	227
5.4	<i>Microperoryctes longicauda</i> , long-tailed bandicoot	228
5.5	<i>Rattus exulans</i> , rat	230
5.6	<i>Dobsonia moluccensis</i> , greater bare-backed bat	234
5.7	<i>Stenella longirostris</i> , spinner dolphin	244
5.8	<i>Dugong dugon</i> , dugong	246
5.9	<i>Chelonia mydas</i> , green turtle	248
5.10	<i>Crocodylus porosus</i> , saltwater crocodile	252
5.11	<i>Varanus indicus</i> , water monitor	253
5.12	<i>Hemidactylus frenatus</i> , common house gecko	256
5.13	Skink	258
6.1	<i>Gallus gallus</i> , Red Jungle Fowl	284
6.2	<i>Casuarus bennetti</i> , Dwarf Cassowary	288
6.3	<i>Egretta sacra</i> , Reef Heron	289
6.4	<i>Anas superciliosa</i> , Pacific Black Duck	294
6.5	<i>Haliaeetus leucogaster</i> , White-bellied Sea Eagle	297
6.6	<i>Aviceda subcristata</i> , Crested Baza	301
6.7	<i>Circus approximans</i> , Pacific Marsh Harrier	303
6.8	<i>Megapodius eremita</i> , Bismarck Scrub Fowl	305
6.9	<i>Porphyrio porphyrio</i> , Purple Swamphen	307
6.10	<i>Rallus philippensis</i> , Buff-banded Rail	308
6.11	<i>Ducula pacifica</i> , Pacific Pigeon	312
6.12	<i>Phigys solitarius</i> , Collared Lory	328
6.13	<i>Tyto alba</i> , Barn Owl	332
6.14	<i>Hemiprocne mystacea</i> , Whiskered Tree-swift	335
6.15	<i>Halcyon chloris</i> , White-collared Kingfisher	337
6.16	<i>Aceros plicatus</i> , Blyth's Hornbill	340

6.17	<i>Rhipidura leucophrys</i> , Willie Wagtail	342
6.18	<i>Philemon buceroides</i> , Helmeted Friarbird	346
6.19	<i>Phaethon lepturus</i> , White-tailed Tropic Bird	354
6.20	<i>Sula dactylatra</i> , Blue-faced Booby	355
6.21	<i>Fregata ariel</i> , Lesser Frigate Bird	358
6.22	<i>Pluvialis fulva</i> , Pacific Golden Plover	361
6.23	<i>Limosa lapponica</i> , Bar-tailed Godwit	362
7.1	<i>Pediculus humanus capitis</i> , head louse (male)	373
7.2	<i>Anopheles</i> sp., mosquito	380
7.3	Dragonfly	386
7.4	<i>Gryllus</i> sp., cricket	395
7.5	Cicada	396
7.6	Praying mantis and stick insect	398
7.7	Longicorn beetle and <i>Oryctes rhinoceros</i> , rhinoceros-beetle	401
7.8	<i>Hormurus</i> sp., scorpion	408

List of maps

1	The Austronesian language family and major subgroups	xxv
2	Geographic limits of historically known Oceanic speakers and of presently documented Lapita sites	xxvi
3	Groups of Oceanic languages used in cognate sets	11
4	Oceanic language groups in northwest Melanesia: the Admiralties and St Matthias groups and the subgroups of Western Oceanic	15
5	Major zoogeographical boundaries in Island Southeast Asia	218
6	Island Southeast Asia and Northwest Melanesia: island names	219
7	Locations of Eastern Admiralties (Adm) languages	477
8	Locations of languages of the Western Admiralties (Adm) family, the North New Guinea (NNG) cluster, and the Sarmi-Jayapura (SJ) family	478
9	Locations of languages of the Papuan Tip (PT) cluster	479
10	Locations of languages of the Meso-Melanesian (MM) cluster and the St Matthias group	480
11	Locations of Southeast Solomonian (SES) languages	481
12	Locations of Temotu (TM) languages and Pileni	482
13	Locations of North Vanuatu (NCV) languages	483
14	Locations of Central Vanuatu (NCV) languages	484
15	Locations of Southern Vanuatu (SV) and New Caledonia (NCal) languages	485
16	Locations of Yapese, Nauruan, Nuclear Micronesian (Mic) and some Polynesian (Pn) languages	486
17	Locations of Fijian (Fij) and Polynesian (Pn) languages	487

Abbreviations

A	actor	PL	plural
ACD	Blust (1995)	PMM	Proto Meso-Melanesian
Adm	Admiralties	PMP	Proto Malayo-Polynesian
ADJ	adjective	Pn	Polynesian
ADV	adverb	PNCV	Proto North–Central Vanuatu
APPL	applicative	PNGOc	Proto New Guinea Oceanic
ART	article	PNPn	Proto Nuclear Polynesian
CEMP	Central/Eastern Malayo-Polynesian	POc	Proto Oceanic
CMP	Central Malayo-Polynesian	POLLEX	Biggs & Clark (1993)
CSTR	construction marker	POLLEX2	Clark & Biggs (2006)
esp.	especially	PPn	Proto Polynesian
exp	expected	PROc	Proto Remote Oceanic
Fij	Fijian	PSOc	Proto Southern Oceanic
FISHBASE	see Froese & Pauly (2010) in references	PT	Papuan Tip
k.o.	kind of	PWMP	Proto Western Malayo- Polynesian
Mic	Nuclear Micronesian	PWOc	Proto Western Oceanic
MM	Meso-Melanesian	SG	singular
N	noun	s.o.	someone
NCal	New Caledonia	sp.	species (SG)
NCV	North/Central Vanuatu	spp.	species (PL)
NNG	North New Guinea	s.t.	something
NOM	nominaliser	SES	Southeast Solomonian
OBJ	object	SJ	Sarmi/Jayapura
OED	<i>Oxford English Dictionary</i>	SV	South Vanuatu
PAdm	Proto Admiralty	TM	Temotu
PAn	Proto Austronesian	U	undergoer
PASS	passive	v	verb
PCEMP	Proto Central/Eastern Malayo-Polynesian	VI	intransitive verb
PCP	Proto Central Pacific	VT	transitive verb
PEMP	Proto Eastern Malayo-Polynesian	W.Guad.	West Guadalcanal
PEOc	Proto Eastern Oceanic	WMP	Western Malayo-Polynesian

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Other published sources of figures are as follows:

Chapter 2: Pawley & Sayaba (2003): 2.1, 2.2, 2.4, 2.5, 2.6, 2.7, 2.9, 2.11, 2.13, 2.14, 2.15, 2.16, 2.18, 2.21, 2.22, 2.24, 2.29, 2.30, 2.32, 2.33, 2.34, 2.35; Carcasson (1977): 2.20, 2.26, 2.31; Tinker (1978): 2.3; FISHBASE website (Froese & Pauly 2010): 2.8, 2.10, 2.12, 2.17, 2.23, 2.25, 2.27, 2.28.

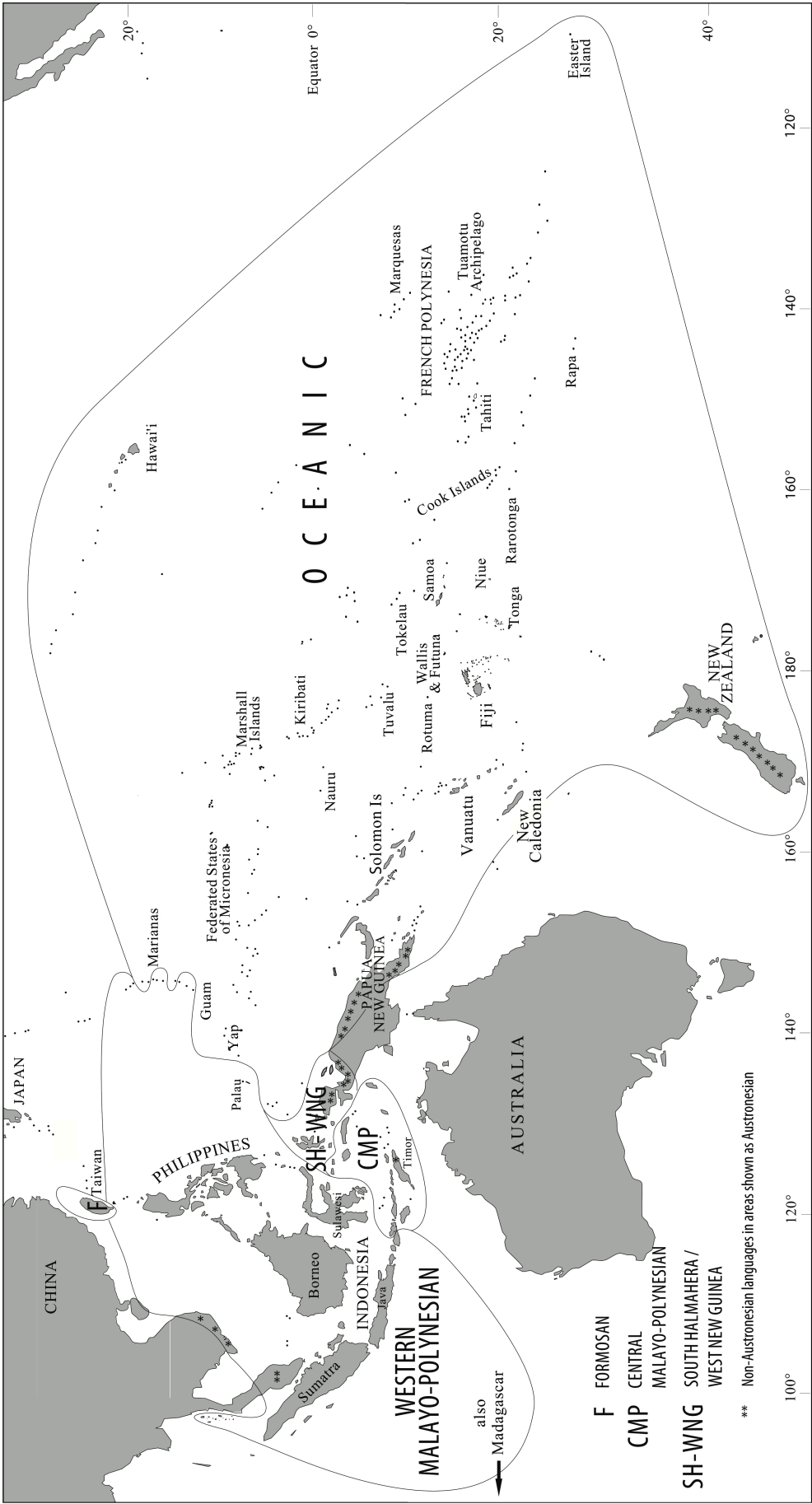
Chapter 4: King (1991): 4.1, 4.2, 4.3; Wagner & Abbott (1964): 4.4, 4.5, 4.6 (turban, cone and murex); De Luca & Deluca (1976): 4.7, 4.8, 4.9, 4.10.

Chapter 5: Beehler (1991): 5.1, 5.3; Majnep & Bulmer (2007): 5.2, 5.4, 5.5; Pawley & Bulmer (f.c.): 5.6, 5.13.

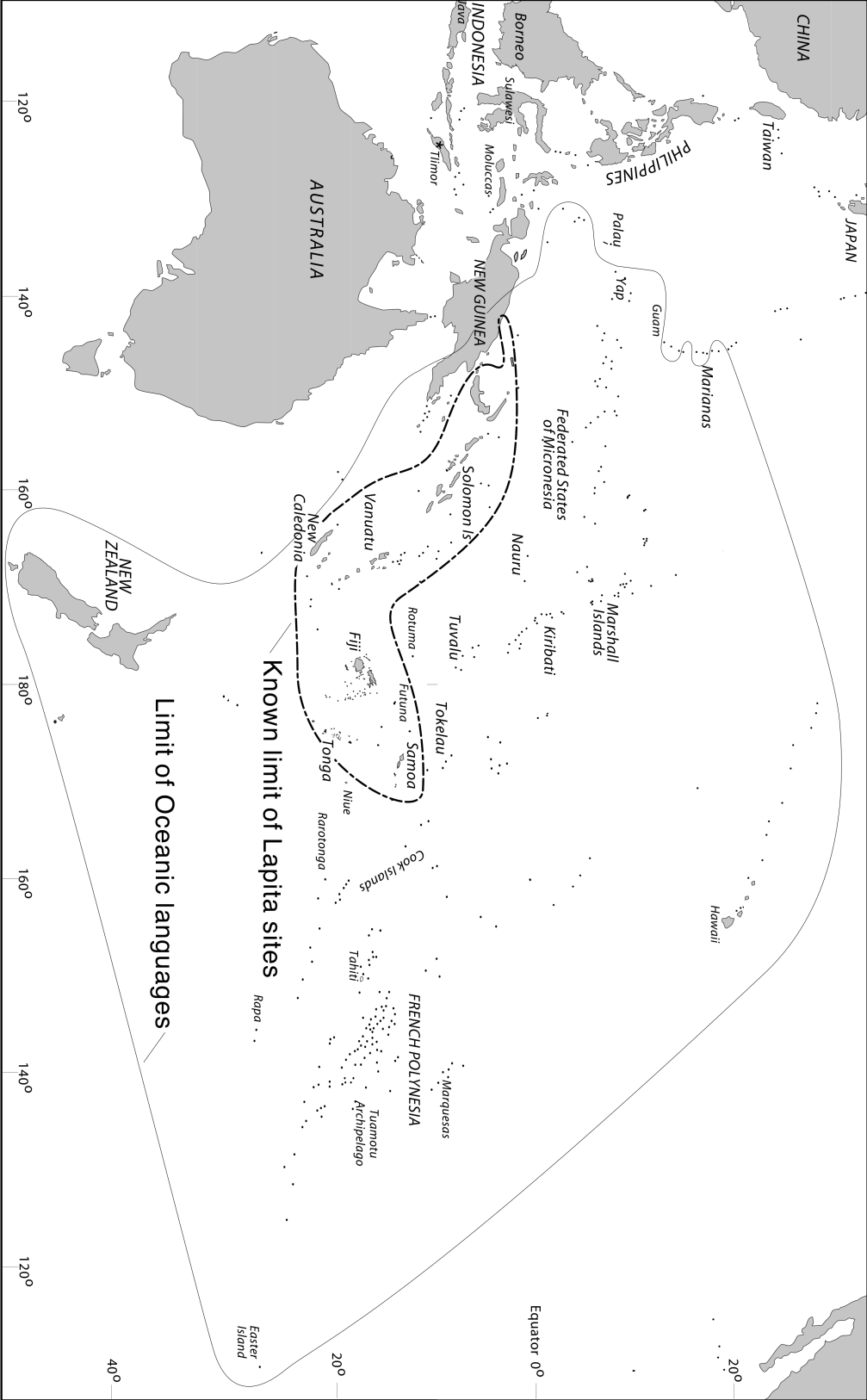
Chapter 6: Watling (1982): 6.1, 6.3, 6.4, 6.7, 6.9, 6.10, 6.11, 6.12, 6.15; Beehler (1991): 6.18; Beehler et al. (1986): 6.2, 6.21; Mayr (1945): 6.13, 6.14, 6.16.

Chapter 7: Curran (1946): 7.4, 7.5, 7.7, 7.8.

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Map 1 The Austronesian language family and major subgroups



Map 2 Geographic limits of historically known Oceanic speakers and of presently documented Lapita sites (after Kirch 1997:17, 54)

1 *Introduction*

MALCOLM ROSS, ANDREW PAWLEY AND MEREDITH OSMOND

1 Aims

This is the fourth in a series of volumes on the lexicon of the Proto Oceanic (POc) language.¹ POc is the immediate ancestor of the Oceanic subgroup of the Austronesian language family. This subgroup consists of all the Austronesian languages of Melanesia east of 136° E, together with those of Polynesia and (with two exceptions) those of Micronesia—more than 450 languages in all (see Map 1).² Extensive arguments for the existence of Oceanic as a clearly demarcated branch of Austronesian were first put forward by Otto Dempwolff in the 1920s, and the validity of the subgroup is now recognised by virtually all scholars working in Austronesian historical linguistics.

The development and break-up of the POc language and speech community were stages in a truly remarkable chapter in human prehistory—the colonisation by Austronesian speakers of the Indo-Pacific region in the period after about 2000 BC. The outcome was the largest of the world's well-established language families and (until the expansion of Indo-European after Columbus) the most widespread. The Austronesian family comprises more than 1,000 distinct languages. Its eastern and western outliers, Madagascar and Easter Island, are two-thirds of a world apart, and its northernmost extensions, Hawai'i and Taiwan, are separated by 70 degrees of latitude from its southernmost outpost, Stewart Island in New Zealand. It is likely that the divergence of Oceanic from its nearest relatives, which are the Austronesian languages spoken around Cenderawasih Bay and in South Halmahera (Blust 1978*a*), began when Austronesian speakers from the Cenderawasih Bay area moved eastwards along the north coast of New Guinea and into the Bismarck Archipelago. There is a strong school of opinion that associates the subsequent break-up of POc with the rapid colonisation of Island

¹ The project has been jointly directed by Andrew Pawley and Malcolm Ross, with research assistance from Meredith Osmond, in the Department of Linguistics, Research School of Pacific and Asian Studies at the Australian National University. Originally, five volumes were planned, but the large amount of material has required this to be increased to seven (see p2).

² The listing in Tryon (1995) contains 466 Oceanic languages, many of which are subdivisible into dialects.

Melanesia and the central Pacific by bearers of the Lapita culture between about 1200 and 900 BC (see Map 2 and volume 2, chapter 2).

The present project aims to bring together a large corpus of lexical reconstructions for POc, with supporting cognate sets, organised according to semantic fields and using a standard orthography for POc. We hope that this thesaurus will be a useful resource for culture historians, archaeologists and others interested in the prehistory of the Pacific region. The comparative lexical material should also be a rich source of data for various kinds of purely linguistic research, e.g. on semantic change and subgrouping in the more than 400 daughter languages.

Volume 1 of *The lexicon of Proto Oceanic* deals with material culture. Volumes 2, 3 and 4 examine relevant sets of cognate terms in order to gain insights into how POc speakers viewed and exploited their environment. Volume 2 deals with the geophysical or inanimate environment, volume 3 treats plants and the present volume animals. Volume 5, as it is planned at the time of writing, will investigate terminologies centring on people, including the body and human conditions and activities, and volume 6 will concern social organisation, belief systems, rituals, recreation and other elements of non-material culture. The seventh and final volume will perform a number of functions. It will treat certain lexical categories, e.g. closed classes of lexical roots, not dealt with in earlier volumes. It will review the main findings of the project concerning the culture and environment of Proto Oceanic speakers and will compare these findings with what archaeology tells us about the way of life and environment of the bearers of the Lapita culture. Volume 7 will also provide an index to the POc and other reconstructions presented in the whole work, as well as an English-to-POc finderlist and a list of all languages cited, together with their subgroups.³

The major headings under which animals are divided in this volume, e.g. Fish, Birds, Aquatic invertebrates, etc., largely follow English-language rather than Oceanic categories. There are several reasons for this choice. One is that descriptions of Oceanic taxonomies of animals are few and imperfect. Another is that although the best-described Oceanic taxonomies typically agree with one another in some respects, they vary in others. Yet another is that we assume that readers would be more likely to look, say, for ‘bats’ under Mammals than under Birds.

In keeping with the exceptionally rich diversity of marine fauna in Oceania and its economic and cultural importance to Oceanic societies, three (chapters 2–4) of the seven chapters that follow this introduction are largely devoted to creatures of the sea, as are portions of two others (chapters 5 and 8). Chapters 2 and 3 both concern fish terminologies. Chapter 2 presents supporting cognate sets for more than 140 POc fish names and for many additional names attributable to other major interstages below POc. A good many of the names are identifiable at the level of genus or species, others only to family or class. Chapter 3 investigates the retention rates of a sample of 52 POc fish names and asks why the total number of fish names reconstructed for POc is so much smaller than the number typically distinguished by contemporary Oceanic languages. Chapter 4 presents reconstructions of terms for aquatic invertebrates and their body parts. Chapter 5 examines terms for mammals, reptiles and amphibians. Again it is partly about creatures of the sea. Other than New Guinea, the islands

³ This Introduction incorporates much of the material in the Introductions to Volume 1, 2 and 3. We replicate this material here in order that each volume can be used independently. The introduction to volume 3, however, introduced a fresh presentation of the subgrouping of Oceanic languages, and this is retained here.

of Oceania have few native land mammals. Chapter 6 deals with names for bird taxa and other terms associated with birds. Chapter 7 is entitled ‘Insects and other creepy-crawlies’, the latter including non-insect terrestrial invertebrates: spiders, centipedes, worms, leeches and grubs. The final chapter of the volume, chapter 8, investigates the semantic histories of several terms that may have been high-level generics or life-forms in the POc taxonomy of animals. It looks for recurrent patterns in the way different languages have extended or reduced the referential range of each of these terms.

2 The relation of the current project to previous work

Reconstructions of POc phonology and lexicon began with Dempwolff’s pioneering work in the 1920s and 1930s. Dempwolff’s dictionary of reconstructions attributed to Proto Austronesian (PAN) (1938) — but equivalent in modern terms to Proto Malayo-Polynesian (PMP) — contains some 600 reconstructions with reflexes in Oceanic languages.

Since the 1950s, POc and other early Oceanic interstage languages have been the subject of a considerable body of research. However, relatively few new reconstructions safely attributable to POc were added to Dempwolff’s material until the 1970s. In 1969 George Grace made available as a working paper a compilation of reconstructions from various sources amounting to some 700 distinct items, attributed either to POc or to early Oceanic interstages. These materials were presented in a new orthography for POc, based largely on Biggs’ (1965) orthography for an interstage he called Proto Eastern Oceanic. Updated compilations of Oceanic cognate sets were produced at the University of Hawai‘i in the period 1977–1983 as part of a project directed by Grace and Pawley. These compilations and the supporting data are problematic in various respects and we have made only limited use of them.

Comparative lexical studies have been carried out for several lower-order subgroups of Oceanic: for Proto Polynesian by Biggs (resulting in Walsh & Biggs 1966, Biggs et al. 1970 and subsequent versions of the POLLEX file, including Biggs & Clark (1993) and Clark & Biggs (2006); for Proto Micronesian by scholars associated with the University of Hawai‘i (Bender et al. 1983, Bender et al. 2003); for the ancestor of the Banks and Torres languages by Alexandre François (several unpublished manuscripts); for Proto North and Central Vanuatu by Clark (1996, 2009); for Proto Southern Vanuatu by Lynch (1978, 1996, 2001); for New Caledonia by Ozanne-Rivierre (1992), Haudricourt & Ozanne-Rivierre (1982) and Geraghty (1989); for Proto SE Solomonic by Levy (1980) and Lichtenberk (1988); for Proto Central Pacific by Hockett (1976), Geraghty (1983, 1986, 1996 together with a number of unpublished papers); for Proto Eastern Oceanic by Biggs (1965), Cashmore (1969), Levy & Smith (1970), and Geraghty (1990); and for Proto Central Papuan by Pawley (1975), Lynch (1978, 1980), and Ross (1994).

Robert Blust of the University of Hawai‘i has, in a series of papers (1970, 1980, 1983–84, 1986, 1989) published extensive, alphabetically ordered, lexical reconstructions (with supporting cognate sets) for interstages earlier than POc, especially for Proto Austronesian, Proto Malayo-Polynesian and Proto Eastern Malayo-Polynesian. He has also written several papers investigating specific semantic fields (Blust 1980*b*, 1982, 1987, 1994). Blust has a major work in progress, the Austronesian Comparative Dictionary (ACD), which will bring together all his reconstructions for Proto Austronesian and lower-order stages. This is stored in electronic form at the University of Hawai‘i. The version to which we refer dates from 1995.

Several papers predating our project systematically investigated particular semantic domains in the lexicon of POc, e.g. Milke (1958), French-Wright (1983), Pawley (1982, 1985), Pawley & Green (1985), Lichtenberk (1986), Walter (1989), and the various papers in Pawley & Ross (1994). Ross (1988) contains a substantial number of new POc lexical reconstructions, as well as proposed modifications to the reconstructed POc sound system and the orthography. However, previous Oceanic lexical studies were limited both by large gaps in the data, with a distinct bias in favour of ‘Eastern Oceanic’ languages, and by the technical problems of collating large quantities of data. Although most languages in Melanesia remain poorly described, there are now many more dictionaries and extended word lists, particularly for Papua New Guinea, than there were in the 1980s. And developments in computing hardware and software now permit much faster and more precise handling of data than was possible then. A list of sources and a summary of the Project’s collation procedures is found in Appendix 1.

Several compilations of reconstructions have provided valuable points of reference, both inside and outside the Oceanic group. We are indebted particularly to Bender et al. (2003), two editions of *POLLEX* (Biggs & Clark 1993 and Clark & Biggs 2006), Blust (ACD), Clark (2009) and Lynch (2001*b*).

In the course of planning the several volumes for the present project, we came to realise that the form in which preliminary publications were presented—namely as essays, each discussing cognate sets for a particular semantic field at some length—would also be the best form for the presentation of our final synthesis. A discursive treatment of individual terminologies, as opposed, say, to a dictionary-type listing of reconstructions with supporting cognate sets, makes it easier to relate the linguistic comparisons to relevant issues of culture history, language change, and methodology. Hence each of the present volumes has as its core a collection of analytic essays. Some of these have been published or presented elsewhere, but are printed here in revised form. In some cases we have updated the earlier versions in the light of subsequent research, and, where appropriate, have inserted cross-references between contributions. Authorship is in some cases something of a problem, as a number of people have had a hand in collating the data, doing the reconstructions, and (re)writing for publication here. In most chapters, however, one person did the research which determined the structure of the terminology, and that person appears as the first or only author, and where another or others had a substantial part in putting together the paper itself, they appear as the second and further authors.

3 Reconstructing the lexicon

The lexical reconstructions presented in these volumes are arrived at using the standard methods of comparative linguistics, which require as preliminaries a subgrouping or internal classification of the languages in question (§3.2) and the working out of systematic sound correspondences among cognate vocabulary in contemporary languages (§3.3). As well as cognate sets clearly attributable to POc, we have included some cognate sets which at this stage are attributable to various interstage languages, particularly Proto Western and Proto Eastern Oceanic (but see §3.2 for definitions). We have set out to pay more careful attention to reconstructing the semantics of POc forms than has generally been done in earlier work, treating words not as isolates but as parts of terminologies.

3.1 Terminological reconstruction

Our method of doing ‘terminological reconstruction’ is as follows. First, the terminologies of present-day speakers of Oceanic languages are used as the basis for constructing a hypothesis about the semantic structure of a corresponding POc terminology, taking account of (i) ethnographic evidence, i.e. descriptions of the lifestyles of Oceanic communities and (ii) the geographical and physical resources of particular regions of Oceania. For example, by comparing terms in several languages for parts of an outrigger canoe, or for growth stages of a coconut, one can see which concepts recur and so are likely to have been present in POc. Secondly, a search is made for cognate sets from which forms can be reconstructed to match each meaning in this hypothesised terminology. The search is not restricted to members of the Oceanic subgroup; if a term found in an Oceanic language proves to have external (non-Oceanic) cognates, the POc antiquity of that term will be confirmed and additional evidence concerning its meaning will be provided. Thirdly, the hypothesised terminology is re-examined to see if it needs modification in the light of the reconstructions. There are cases, highlighted in the various contributions to these volumes, where we were able to reconstruct a term where we did not expect to do so and conversely, often more significantly, where we were unable to reconstruct a term where we had believed we should be able to. In each case, we have discussed the reasons why our expectations were not met and what this may mean for Oceanic culture history.

Blust (1987a: 81) distinguishes between conventional ‘semantic reconstruction’, which asks, “What was the probable meaning of protomorpheme X?”, and Dyen and Aberle’s (1974) ‘lexical reconstruction’, where one asks, “What was the protomorpheme which probably meant ‘X’?” At first sight, it might appear that terminological reconstruction is a version of lexical reconstruction. However, there are sharp differences. Lexical reconstruction applies a formal procedure: likely protomeanings are selected from among the glosses of words in available cognate sets, then an algorithm is applied to determine which meaning should be attributed to each set. This procedure may have unsatisfactory results, as Blust points out. Reconstructions may end up with crude and overly simple glosses; or no meaning may be reconstructed for a form because none of the glosses of its reflexes is its protomeaning.

Terminological reconstruction is instead similar to the semantic reconstruction approach. In terminological reconstruction the meanings of protomorphemes are not determined in advance. Instead, cognate sets are collected and their meanings are compared with regard to:

- their specific denotations, where these are known;
- the geographic and genetic distribution of these denotations (i.e. are the glosses from which the protogloss is reconstructed well distributed?);
- any derivational relationships to other reconstructions;
- their place within a working hypothesis of the relevant POc terminology (e.g., are terms complementary —‘bow’ implies ‘arrow’; ‘seine net’ implies ‘floats’ and ‘weights’? Are there different levels of classification—generic, specific, and so on?).

For example, it proved possible to reconstruct the following POc terms for tying with cords (vol.1, ch.9, §10):

POc **buku* ‘tie (a knot); fasten’

POc **p^wita* ‘tie by encircling’

POc **paqu(s)*, **paqu-s-i-* ‘bind, lash; construct (canoe +) by lashing together’

POc **pisi* ‘bind up, tie up, wind round, wrap’

POc **kiti* ‘tie, bind’

In each of the supporting cognate sets from contemporary languages there are a number of items whose glosses in the dictionaries or word lists are too vague to tell the analyst anything about the specific denotation of the item, and in the case of **kiti* this prevents the assignment of a more specific meaning. The verb **buku* can be identified as the generic term for tying a knot because of its derivational relationship (by zero derivation) with a noun whose denotation is clearly generic, **buku* ‘node (as in bamboo or sugarcane); joint; knuckle; knot in wood, string or rope’ (vol.1, ch.4, §3.2). Reconstruction of the meaning of **p^wita* as ‘tie by encircling’ is supported by the meanings of the Lukep, Takia and Longgu reflexes, respectively ‘tie by encircling’, ‘tie on (as grass-skirt)’, and ‘trap an animal’s leg; tie s.t. around ankle or wrist’: Lukep and Takia are North New Guinea languages, whilst Longgu is SE Solomonic. Reconstruction of the meaning of **paqu(s)*, **paqus-i-* as ‘bind, lash; construct (canoe +) by tying together’ is supported by the meanings of the Takia, Kiribati and Samoan reflexes, respectively ‘tie, bind; construct (a canoe)’, ‘construct (canoe, house)’, and ‘make, construct (wooden objects, canoes +)’: Takia is a North New Guinea language, Kiribati is Micronesian, and Samoan is Polynesian. The meaning of **pisi* is similarly reconstructed by reference to the meanings of its Mono-Alu, Mota, Port Sandwich, Nguna and Fijian reflexes.

Often, however, the authors have been less fortunate in the information available to them. For example, Osmond (vol.1, ch.8, §9) reconstructs six POc terms broadly glossed as ‘spear’. Multiple terms for implements within one language imply that these items were used extensively and possibly in specialised ways. Can we throw light on these specialised ways? Unfortunately, some of the word lists and dictionaries available give minimal glosses, e.g. ‘spear’, for reflexes of the six reconstructions. What we need to know for each reflex is: what is the level of reference? Is it a term for all spears, or perhaps all pointed projectiles including arrows and darts? Or does it refer to a particular kind of spear? Is it noun or verb or both? If a noun, does it refer to both the instrument and the activity? Most word lists are frustratingly short on detail. For this kind of detail, ethnographies have proved a more fruitful source of information than many word lists.

Another problem is inherent in the dangers of sampling from over 450 languages. The greater the number of languages, the greater are the possible variations in meaning of any given term, and the greater the chances of two languages making the same semantic leaps quite independently. Does our (sometimes quite limited) cognate set provide us with a clear unambiguous gloss, or have we picked up an accidental bias, a secondary or distantly related meaning? Did etymon *x* refer to fishhook or the material from which the fishhook was made? Did etymon *y* refer to the slingshot or to the action of turning round and round?

3.2 Subgrouping and reconstruction

3.2.1 Subgrouping

Although the subgrouping of Austronesian languages, and hypotheses about which protolanguage was spoken where, remain in certain cases somewhat controversial, it is impossible to proceed without making some assumptions about these matters. Figures 1.1 and 1.2 are approximate renderings of our subgrouping assumptions. The upper part of the tree, shown in Figure 1.1, is due to Blust, originally presented in Blust (1977) and repeated with additional

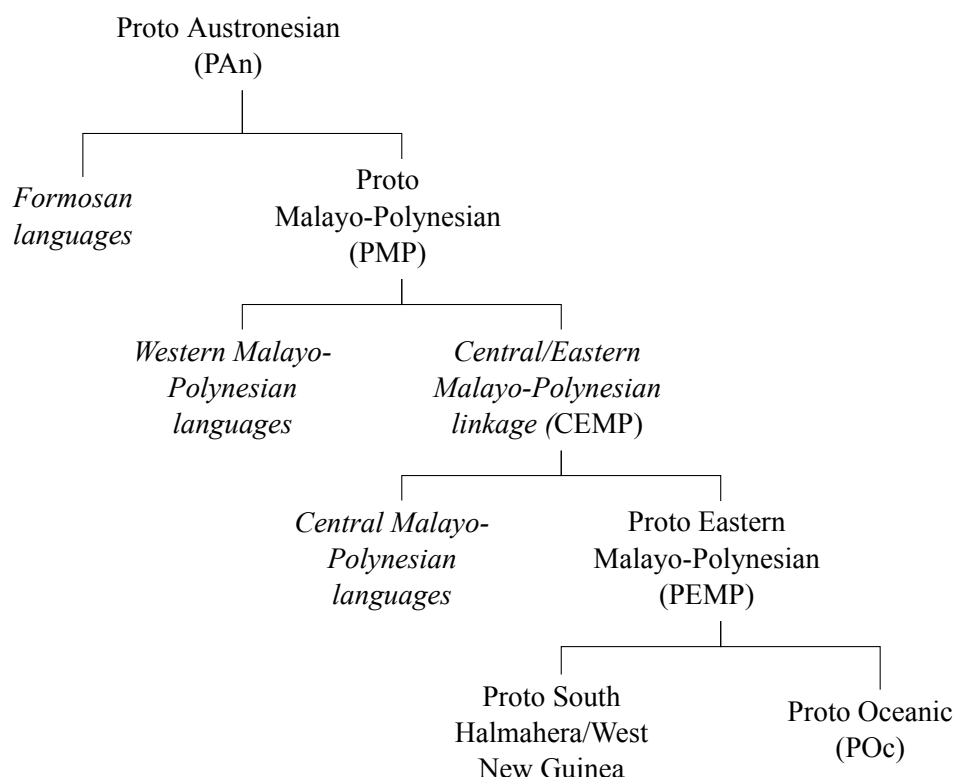


Figure 1.1 Schematic diagram showing higher-order subgroups of Austronesian languages.

supporting evidence in subsequent publications (1978, 1982, 1983–84, 1993, 2009).⁴ The diagram of the lower (Oceanic) part of the tree in Figure 1.2 shows nine primary subgroups of Oceanic. Its rake-like structure indicates that no convincing body of shared innovations has been found to allow any of the nine subgroups to be combined into higher-order groupings. Sections 3.2.2, 3.2.3 and 3.2.4 offer some commentary on our subgrouping, and in §3.2.4 we explain how we handle the rake-like structure in making reconstructions.

3.2.2 Kinds of subgroup

In Figures 1.1 and 1.2 each node is either a single language,⁵ usually a reconstructed protolanguage, or, in italics, a group of languages.

Where a node is a protolanguage, its descendants form a proper subgroup (in the technical sense in which historical linguists use the term ‘subgroup’). A proper subgroup is identified by innovations shared by its member languages, i.e. it is ‘innovation-defined’ in the terminology of Pawley & Ross (1995). These innovations are assumed to have occurred just once in

⁴ For critical overviews of the literature on Austronesian subgrouping, see Ross (1995), Adelaar (2005) and Blust (2009a). The CEMP and Central Malayo-Polynesian linkages, and also PEMP, have been called into question recently, but these issues lie beyond our present scope (Blust 2009b, Donohue & Grimes 2008, Ross 2008b).

⁵ The two very closely related languages Mussau and Tench form a minor exception.

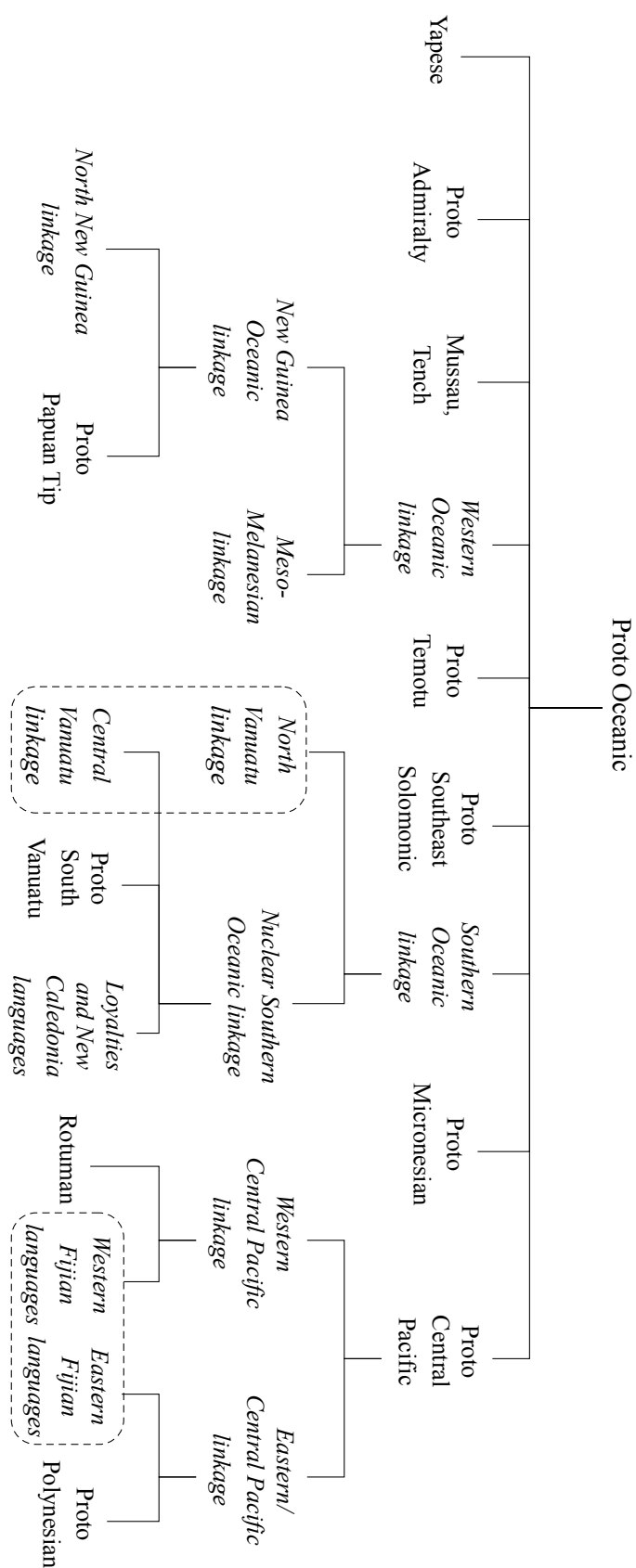


Figure 1.2 Schematic diagram showing the subgrouping of Oceanic Austronesian languages.

the subgroup's protolanguage, i.e. the exclusively shared ancestor of its members. Thus languages of the large Oceanic subgroup of Austronesian share a set of innovations relative to the earlier Austronesian stages shown in Figure 1.1 (Dempwolff 1934).⁶ By inference these innovations occurred in their common ancestor, POc, and the claim that they are innovations is based on a comparison of reconstructed POc with reconstructed PMP. The innovations may be phonological (e.g. PMP **e*, pronounced [ə], and PMP **aw* both became POc **o*), morphological (e.g. POc acquired a morphological distinction between three kinds of possessive relationship: food, drink and default), or lexical (e.g. PMP **limaw* 'citrus fruit' was replaced by POc **molis*).

Italics are used in Figures 1.1 and 1.2 to indicate a group of languages which is not a proper subgroup, i.e. has no identifiable *exclusively* shared parent. Thus *Formosan languages* in Figure 1.1 indicates a collection of languages descended (along with PMP) from PAN. They are spoken in Taiwan, but do not form a subgroup. There was no 'Proto Formosan', as Formosan languages and language groups are all descended directly from PAN.

Some of the italicised labels in Figures 1.1 and 1.2 include the term *linkage*. A linkage (an 'innovation-linked group' in the terminology of Pawley & Ross 1995) is a collection of usually quite closely related languages or dialects,⁷ speakers of which were in sufficient contact at one time or another during their history for innovations to pass from one language to the next, often resulting in a pattern such that the domains of various innovations overlap but are not coterminous.⁸ A number of Oceanic linkages were recognised during the 1980s (Geraghty 1983, Pawley & Green 1984, Ross 1988).⁹ A linkage may arise in at least three ways, but distinguishing between them is often impossible.

First, what would otherwise be a proper subgroup may happen to lack exclusively shared innovations, perhaps because the parent did not exist as a unit for long enough to undergo any innovations of its own.¹⁰

Second, a linkage may consist of some but not all of the languages descended from a single parent. The Western Oceanic linkage reflects the innovations of POc, but no innovation is common to the whole of Western Oceanic (although the merger of POc **r* and **R* comes close). However, the languages of its three component linkages—North New Guinea, Papuan Tip and Meso-Melanesian—display complex patterns of overlapping innovations. The Western Oceanic linkage appears to be descended from the dialects of POc that were left behind in the Bismarck Archipelago after speakers of the languages ancestral to the other eight primary subgroups in Figure 1.2 had moved away to the north or east. After these departures

⁶ Chapter 4 of Lynch et al. (2002) gives a recent account of these innovations.

⁷ In what follows, 'language' is used to mean 'language or dialect'.

⁸ One or more innovations may spread right across the languages of the linkage. In this case it becomes virtually impossible to distinguish it from a proper subgroup.

⁹ Recent work in Indo-European appeals to the concept of linkage: Garrett (2006) suggests that the dialects ancestral to Greek were not dialects of 'Proto Greek' but a collection of Nuclear Indo-European dialects drawn together by relations between the communities ancestral to the Greek city states, across which spread the innovations which characterise Ancient Greek.

¹⁰ A situation in which a subgroup is both proper (i.e. defined by exclusive innovations) and a linkage (displaying overlapping patterns of innovations) is of course possible, the exclusively shared innovations having occurred in the parent, the others after the break-up of the parent. It so happens that we have no need of this construct here.

various innovations occurred. Each arose somewhere in the Western Oceanic dialect network and spread to neighbouring dialects without reaching every dialect in the network.

The third type of linkage is the result of contact among languages descended from more than one immediate parent, indicated in Figure 1.2 by a dashed line around the relevant groups of languages. An example is the Fijian linkage, which represents the partial resynthesis of the Fiji-based descendants of earlier Western Central Pacific and Eastern Central Pacific linkages after Rotuman and Polynesian had split off from them (Geraghty & Pawley 1981, Geraghty 1983, Pawley 1996b).¹¹ Geraghty reconstructed the history of the Fijian linkage by painstaking analysis of innovations from at least two stages in its history. From the earlier period Western Fijian languages share innovations with Rotuman and Eastern Fijian with Polynesian. From a more recent period Western Fijian and Eastern Fijian languages share innovations with each other, reflecting their reintegration into a single linkage, within which the present Western/Eastern boundary has shifted relative to the (fuzzy) boundary of the earlier period.

For most of the linkages noted in Figures 1.1 and 1.2 this kind of analysis is not available. For example, Blust (1993) indicates that CEMP was a linkage. But its history is far from clear. Does CEMP perhaps include some languages that share history with languages to their west and others that share history with those to their north? The North/Central Vanuatu linkage, long assumed to be some sort of genealogical unit, appears to reflect the partial reintegration of at least two dialect networks, North Vanuatu and Central Vanuatu, that probably had not diverged greatly from each other, but the details of this history are difficult to elucidate (Lynch 2000a).¹²

The languages of a linkage have no identifiable exclusively shared parent. Yet we have found many instances in which a cognate set is limited to one of the linkages in Figures 1.1 and 1.2: CEMP, Western Oceanic, New Guinea Oceanic, Southern Oceanic or the reintegrated North and Central Vanuatu linkage. As with PEOc and PROc (§3.2.4), we think it is preferable to attribute these reconstructions to a hypothetical protolanguage rather than to a higher node in the tree. Hence there are reconstructions labelled PCEMP, PWOC and so on. Again these apparent lexical innovations offer only the weakest evidence for the protolanguage to which they are attributed. In addition to the explanations of the kinds offered for PEOc and PROc etyma in §3.2.4 it is possible, for example, that an innovatory ‘PWOC’ etymon arose when the Western Oceanic dialect network was still close-knit, and spread from dialect to dialect before the network broke into the two networks ancestral to its present-day first-order subgroups.

3.2.3 Further notes on subgroups

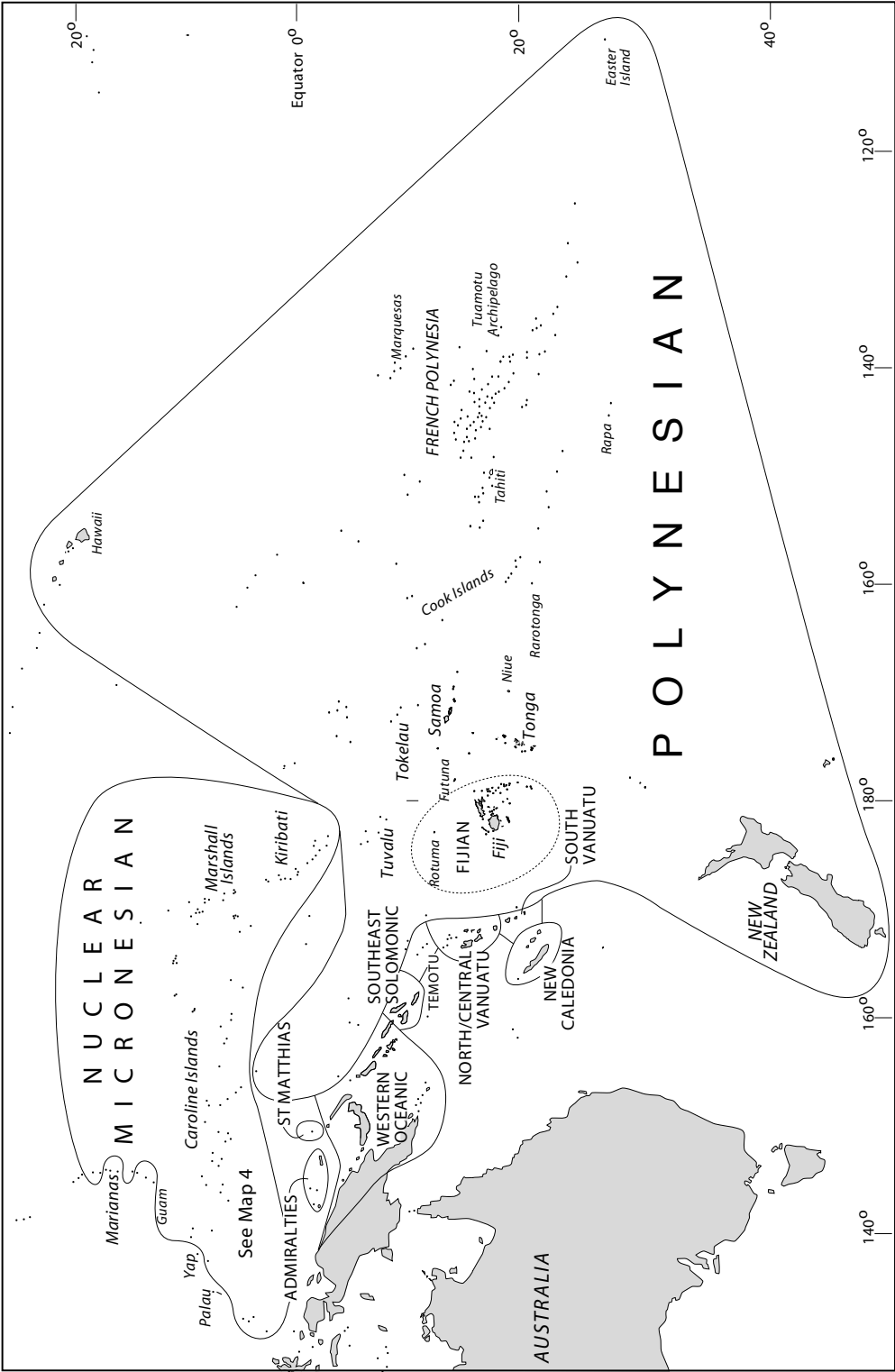
This section brings together brief notes on the subgroups in Figure 1.2 beyond those mentioned in the discussion in §3.2.2.

Admiralty is a proper subgroup (Ross 1988: ch.9).

Western Oceanic consists of the North New Guinea (NNG), Papuan Tip (PT), Meso-Melanesian (MM) linkages and the Sarmi/Jayapura (SJ) group (see Map 4). The last-named may belong to the NNG linkage, but this is uncertain (Ross 1996b). It is not shown in Figure 1.2 and its languages do not play a crucial role in reconstruction. It is likely that the NNG

¹¹ ‘Eastern Fijian languages’ in Figure 1.2 is our label for Geraghty’s (1983) ‘Tokalau Fijian’.

¹² For a history of scholarly views of the subgrouping of North and Central Vanuatu languages see Clark (2009: §1.3). For arguments supporting a NCV grouping, see Clark (2009: ch.4).



Map 3 Groups of Oceanic languages used in cognate sets

and PT groups form a super-group, the New Guinea Oceanic linkage, and so etyma reflected only in NNG and PT languages are attributed to a putative Proto New Guinea Oceanic (Milke 1958, Pawley 1978), and etyma reflected in either NNG or PT (or both) and in MM are labelled PWOC.

SE Solomonic was established as a proper subgroup by Pawley (1972: 98–110). Further support was provided by Levy (1979, 1980, n. d.), Tryon & Hackman (1983) and Lichtenberk (1988).

Temotu comprises the languages of the Reef Islands, Santa Cruz, Utupua and Vanikoro, located 400 km east of the main Solomons archipelago and to the north of Vanuatu (Map 3). It was established as a proper subgroup by (Ross & Næss 2007).

The *Southern Oceanic* linkage as proposed by Lynch (1999, 2000, 2001, 2004) is characterised by complex overlapping innovations, but by none that are reflected in all its member languages and would qualify it as a proper subgroup (see discussion in Lynch et al. 2002: 112–114).¹³

Micronesian is a proper subgroup (Jackson 1983, 1986, Bender et al. 2003).

Central Pacific is a proper subgroup, but one defined by only a handful of shared innovations, indicating that the period of unity was short (Geraghty 1996). The high-order subgrouping of Central Pacific is due to Geraghty (1983), except for the position of Rotuman, due to Pawley (1996*b*). Within Central Pacific is another long recognised proper subgroup, *Polynesian*, for which Pawley (1996*a*) lists diagnostic innovations.

3.2.4 Criteria for reconstruction

The strength of a lexical reconstruction rests crucially on the distribution of the supporting cognate set across subgroups. The *distribution* of cognate forms and agreements in their meanings is much more important than the *number* of cognates. It is enough to make a secure reconstruction if a cognate set occurs in just two languages in a family, with agreement in meaning, provided that the two languages belong to different primary subgroups and provided that there is no reason to suspect that the resemblances are due to borrowing or chance. The PMP term **apij* ‘twins’ is reflected in several western Malayo-Polynesian languages (e.g. Batak *apid* ‘twins, double (fused) banana’) but only a single Oceanic reflex is known, namely Roviana *avisi* ‘twins of the same sex’. Because Roviana belongs to a different first-order branch of Malayo-Polynesian from the western Malayo-Polynesian witnesses and because there is virtually no chance that the agreement is due to borrowing or chance similarity, this distribution is enough to justify the reconstruction of PMP **apij*, POc **apic* ‘twins’.

The rake-like form of Figure 1.2 almost certainly reflects the very rapid settlement of Oceania out of the Bismarcks,¹⁴ but it confronts us with a methodological question. If we follow the rubric that we make a reconstruction if a cognate set occurs in languages of just

¹³ Because they have only been recently proposed, Temotu and Southern Oceanic do not appear in Figure 1 of volumes 1 and 2.

¹⁴ Bearers of the Lapita culture had settled various parts of the Bismarck Archipelago by around 1400 BC (Specht 2007) and colonised the Reefs and Santa Cruz Is. in the Temotu Archipelago by 1200–1100 BC (Green 2003, Green et al. 2008). There were Lapita settlements in New Caledonia by 1100–1000 BC (Sand 2001), in Fiji by about 1000 BC (Clark & Anderson 2009, Nunn et al. 2004), in Tonga by 900 BC (Burley & Connaughton 2007), and in Samoa and the smaller islands between Tonga and Samoa by 800–700 BC (Clark & Anderson 2009).

two primary subgroups, then reflexes of an etymon in, say, a SE Solomonian language and a Micronesian language would be sufficient evidence for a POc reconstruction and the absence of reflexes in Admiralty and Western Oceanic would be irrelevant. Given what we know about the location of the POc homeland (in the Bismarcks; vol.2, ch.2) and the early eastward spread of Oceanic speakers, this is too loose a criterion. Instead, we assume two hypothetical nodes not shown in the tree in Figure 1.2.¹⁵ These are

- Remote Oceanic, comprising Southern Oceanic, Micronesian and Central Pacific;
- Eastern Oceanic, comprising SE Solomonian and Remote Oceanic.¹⁶

If a cognate set occurs in two or all three of the groups in Remote Oceanic, the reconstruction is attributed to Proto Remote Oceanic (PROc). If a cognate set occurs in one or more of the groups in Remote Oceanic and in SE Solomonian, it is attributed to Proto Eastern Oceanic (PEOc). In this way we acknowledge that such reconstructions may represent an innovation that postdates the spread of the early Oceanic speech community. There are enough PROc and PEOc reconstructions to suggest that such lexical innovations indeed occurred. This in turn provides weak evidence for Remote Oceanic and Eastern Oceanic subgroups, but evidence that is too weak to be relied on, for at least two reasons. First, it is quite possible that some of our PROc and PEOc reconstructions will be promoted to POc as more Admiralty and Western Oceanic data become available. Second, it is reasonable to assume that some of our PROc and PEOc etyma are of POc antiquity but happen to have been lost in Proto Admiralty and Proto Western Oceanic. Without supporting phonological or morphological evidence we are unwilling to treat PROc or PEOc as anything other than convenient hypotheses which allow us to retain rigorous criteria for a POc reconstruction.

In volumes 1 and 2 a reconstruction here labelled ‘PROc’ would have been labelled ‘PEOc’, but the absence of SE Solomonian reflexes from among its reflexes indicates that it has the same status as a PROc reconstruction in volume 3 and the present volume. Two factors have led to the distinction between PEOc and PROc here. One was particularly relevant to volume 3: because the primary biogeographic divide in Oceania is between Near and Remote Oceania (see vol. 2, Map 5), i.e. between the Solomon Islands and Vanuatu, the question of whether or not a plant name includes a SE Solomonian reflex is significant, and there are many plant names that do not (and are thus attributed to PROc). The other is that the historical separateness of SE Solomonian from both Western Oceanic and the groups treated as Remote Oceanic has become increasingly clear through recent research (Pawley 2009).

Our criterion for recognising a reconstruction as POc is that the cognate set must occur in at least two out of four criterial groupings: Admiralties (or Yapese or Mussau), Western Oceanic, Temotu and our hypothetical Eastern Oceanic. Both here and at the hypothetical interstages defined above, no reconstruction is made if there are grounds to infer borrowing

¹⁵ We included these nodes in the corresponding tree in Figure 1 of volumes 1 and 2, but this was too easily interpreted as a statement of our views on subgrouping, so we abandon it here and in Appendix 2.

¹⁶ The term ‘Eastern Oceanic’ and the search for evidence of an Eastern Oceanic subgroup has a relatively long pedigree in Oceanic linguistics (Biggs 1965, Pawley 1972, Pawley 1977, Lynch & Tryon 1985, Geraghty 1990). However, by the time volume 1 of the present work was published in 1998 it was already evident that innovations supporting the existence of an Eastern Oceanic subgroup were not forthcoming, as Pawley & Ross (1995: 79) had mentioned in a footnote. Our use of the term here is more inclusive than most, resembling more closely the ‘Central/Eastern Oceanic’ of Lynch & Tryon (1983) (the published version of which, Lynch & Tryon 1985, presents a less inclusive version of Central/Eastern Oceanic) and of Lynch et al. (2002: 94–96), who also express reservations about its status.

from one of these groupings to another.¹⁷ We also reconstruct an etymon to POc if it is reflected in just one of the four criterial groupings and in a non-Oceanic Austronesian language (a member of one of the subgroups on the left branches in Figure 1.1), as illustrated above by the reconstruction of POc **apic* ‘twins’.

These criteria are identical to those applied in volumes 1 and 2 except for the addition of Temotu (which figures in very few cognate sets). The establishment of Temotu as a primary subgroup (Ross & Næss 2007) postdates the publication of volumes 1 and 2.

There are indications that Yapese (a single-language subgroup) and Mussau and Tench (a subgroup with two closely related languages) may be more closely related to Admiralty than to any other Oceanic subgroup,¹⁸ and for this reason they are treated as Admiralty languages for the purposes of reconstruction. That is, the presence of a reflex in one or more of these languages and in Admiralty does not support a POc reconstruction, but the presence of of a reflex in one or more of these languages and one of Western Oceanic, Temotu and Eastern Oceanic does support one.

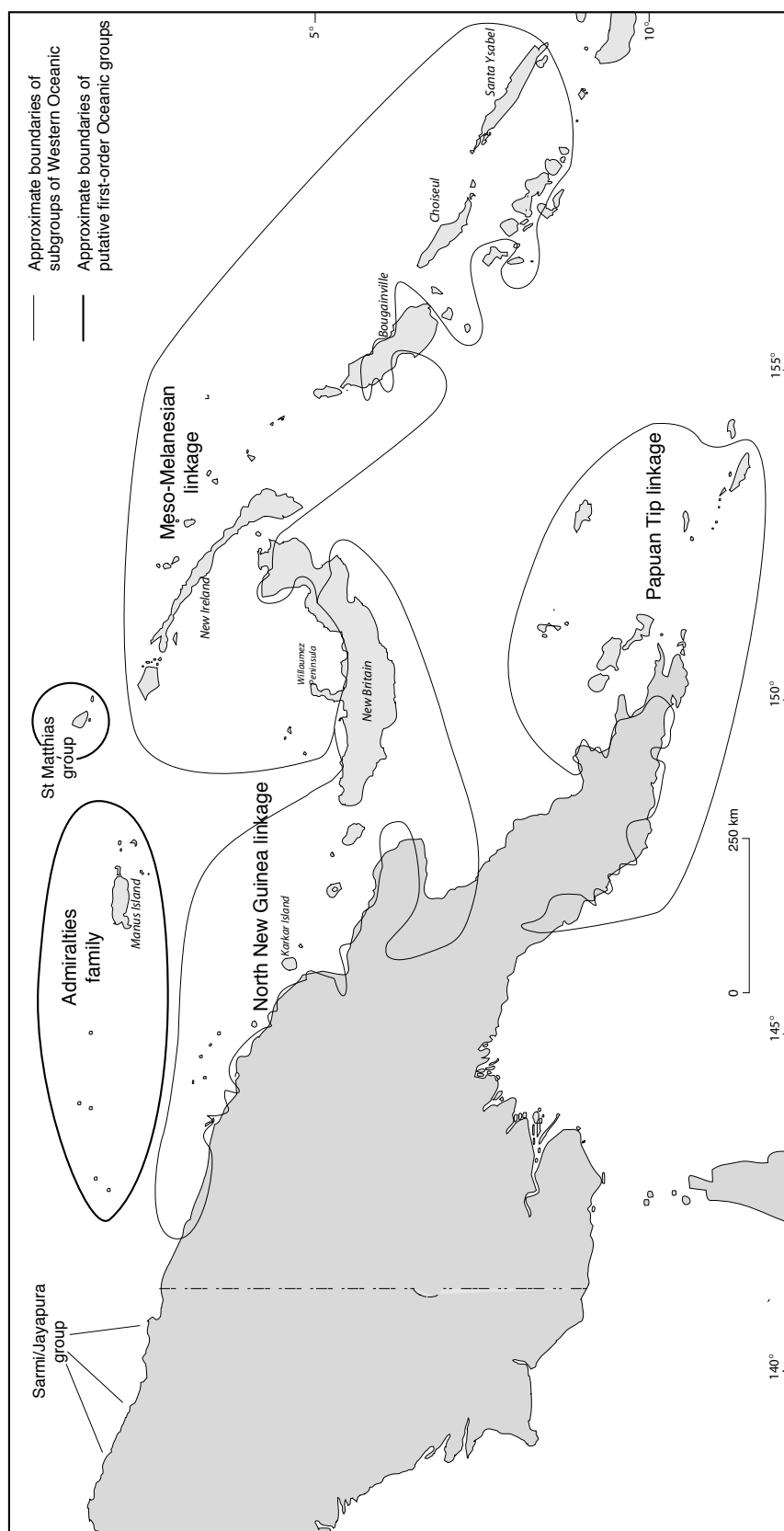
In chapter 2 (§4) of volume 2 Pawley discusses Blust’s (1998) proposal that the primary split in Oceanic divides Admiralty from a subgroup embracing all other Oceanic languages. Pawley dubs the latter ‘Nuclear Oceanic’. If Blust’s subgrouping were accepted, then an etymon which lacked cognates outside Oceanic would need to be reflected both in an Admiralties language and in a non-Admiralties language for a POc reconstruction to be made. Etyma with reflexes in both Western and Eastern Oceanic, but not in the Admiralties, would be reconstructed as Proto Nuclear Oceanic. Under the criteria outlined above, however, we attribute these reconstructions to POc. These criteria were used in volumes 1 and 2, and we have thought it wise to maintain them throughout the volumes of this work. The reader who wishes to single out reconstructions attributable to a putative Proto Nuclear Oceanic (rather than to POc) can easily recognise them, however. They are those POc reconstructions for which (i) there are no Admiralties reflexes, and (ii) there is no higher-order reconstruction (i.e. PEMP, PCEMP, PMP or PAn), since the latter would be based on cognates outside Oceanic.

3.3 Sound correspondences

As we noted above, reconstruction depends on working out the systematic sound correspondences among cognate vocabulary in contemporary languages and on having a working hypothesis about how the sounds of POc have changed and are reflected in modern Oceanic languages. Working out sound correspondences even for twenty languages is a large task, and so we have relied heavily on our own previous work and the work of others. The sound correspondences we have used are those given by Ross (1988) for Western Oceanic and Admiralties; by Levy (1979, 1980) and Lichtenberk (1988) for Cristobal-Malaitan, by Pawley (1972) and Tryon & Hackman (1983) for SE Solomonic; by Ross & Næss (2007) for Temotu;

¹⁷ Cases where such an inference can be made occur mostly at the boundary (in the Solomon Islands) between Western and Eastern Oceanic. Borrowing is likely (and is often reflected in unexpected sound correspondences) where an etymon occurs (i) in Western Oceanic and only in SE Solomonic languages or (ii) in SE Solomonic languages and only in the NW Solomonic languages (a subgroup within the Meso-Melanesian linkage of Western Oceanic).

¹⁸ On the positions of Yapese and Mussau, see respectively Ross (1996a) and Ross (1988: 315–316, 331).



Map 4 Oceanic language groups in northwest Melanesia: the Admiralties and St Matthias groups and the subgroups of Western Oceanic

Table 1.1 Reconstructed paradigm of POC phonemes

*p ^w	*p	*t	*c	*k	*k ^w	*q
*b ^w	*b	*d	*j	*g		
		*s				
*m ^w	*m	*n	*ñ	*ŋ		
		*r				*R
		*dr				
		*l				
*w			*y			
	*i		*u			
	*e		*o			
		*a				

by Tryon (1976) and Clark (2009) for North and Central Vanuatu; by Lynch (1978, 2001) for Southern Vanuatu; by Geraghty (1989), Haudricourt & Ozanne-Rivierre (1982), Ozanne-Rivierre (1992) and Ozanne-Rivierre (1995) for New Caledonia; by Jackson (1986) and Ross (1996*a*) for Nuclear Micronesian; by Geraghty (1986) for Central Pacific; by Biggs (1978) for Polynesian; by Ross (1996*a*) for Yapese; and by Ross (1996*b*) for Oceanic languages of Irian Jaya.

For non-Oceanic languages we have referred to sound correspondences given by Tsuchida (1976) for Formosan languages; by Zorc (1977, 1986) and Reid (1982) for the Philippines; by Adelaar (1992) and Nothofer (1975) for Malay and Javanese; by Sneddon (1984) for Sulawesi; by Collins (1983) for Central Maluku; and by Blust (1978*a*) for South Halmahera and Irian Jaya.

We are well aware that regular sound correspondences can be interfered with in various ways: by phonetic conditioning that the analyst has not identified (see, e.g., Blust 1996*a*), by borrowing (for an extreme Oceanic case, see Grace 1996), or, as recent research suggests, by the frequency of an item's use (Bybee 1994). We have tried at least to note, and sometimes to account for, irregularities in cognate sets.

3.4 POC phonology and orthography

Work based on the sound correspondences of both Oceanic and non-Oceanic languages has resulted in the reconstructed paradigm of POC phonemes shown in Table 1.1. The orthography used here and in the POC reconstructions in this work is from Ross (1988), with the addition of *p^w and *k^w. POC phonology and its relationship to PMP are discussed in greater detail in Chapter 2 (§2) of volume 1. Since the publication of volume 1, articles by John Lynch have appeared on POC stress (2000) and POC labiovelar phonemes (2002). The putative protophoneme *k^w is added in this volume for the first time as a result of taking stock of reconstructions in volumes 1–3 and the current volume. It must have had a very low functional load, as it occurs only word-initially before *a and then only rarely (Ross 2010).

Table 1.2 shows two POC orthographies. The first was established by Biggs (1965), for PEOC, and Grace (1969), who applied it to POC. It has been used with a number of variants,

separated by a slash in Table 1.2. The second, introduced by Ross (1988), is the one generally used in this work. The terms ‘oral grade’ and ‘nasal grade’ were used by Grace (1969) and have become conventional among Oceanic linguists to refer to the outcomes of certain sound changes that occurred between PMP and POc (vol.1, ch.2, §2.4).

4 Conventions common to the series

4.1 Presentation of reconstructions

Each of the contributions to these volumes concerns a particular POc ‘terminology’. Generally, each contribution begins with an introduction to the issues raised by the reconstruction of its particular terminology, and the bulk of each contribution consists of reconstructed etyma with supporting data and a commentary on matters of meaning and form.

The reconstruction of POc **taRaqaŋ* ‘*Holocentrus* spp., squirrelfish’ below, adapted from Chapter 2, §14, shows how reconstructions and supporting cognate sets are presented. Above it is a superordinate (PMP) reconstruction drawn from Blust’s Austronesian Comparative Dictionary (ACD; see §2). Below it are supporting reflexes. Contributors vary in the degree to which they insert lower-order reconstructions like PMic **tarā* and PPn **taʔa* below. Lower-order reconstructions are sometimes given to clarify the relationship of reflexes to the higher-order reconstruction: Southern Vanuatu languages, for example, have undergone so much phonological change that a Proto Southern Vanuatu reconstruction helps explicate the relationship between Southern Vanuatu reflexes and the POc reconstruction. Sometimes a lower-order reconstruction displays an extension of meaning or some other semantic change.

PMP **taRaqaŋ* ‘*Holocentrus* spp., squirrelfish’ (ACD)

POc **taRaqaŋ* ‘*Sargocentron* spp., squirrelfish, including *S. spiniferum*’ (Geraghty 1990:

PEOc **taRaʔa*)

Adm:	Loniu	<i>taʔay</i>	‘squirrelfish or silver biddy’ (metathesis: expected form † <i>taya</i> (?))
NNG:	Yabem	<i>talaŋ</i>	‘a red sea fish’
PT:	Gumasi	<i>tayawana</i>	‘squirrel fish’

Table 1.2 POc orthographies after Grace (1969) and Ross (1988)

Grace	oral grade	*p	—	*t	*d/*r	*s	*j	*k	—
Ross		*p	*p ^w	*t	*r	*s	*c	*k	*k ^w
Grace	nasal grade	*mp	*ŋp/*mpw	*nt	*nd/*nr	*ŋj		*ŋk	
Ross		*b	*b ^w	*d	*dr	*j		*g	
Grace		*m	*ŋm/*mw	*n	*ñ	*ŋ	*w	*y	*l *q *R
Ross		*m	*m ^w	*n	*ñ	*ŋ	*w	*y	*l *q *R
Grace		*i	*o	*e	*a	*u			
Ross		*i	*o	*e	*a	*u			

PT:	Misima	<i>talayan</i>	‘ <i>Sargocentron</i> spp., spiny and blue-striped squirrelfish’
PT:	Motu	<i>tara</i>	‘ <i>S. violaceum</i> , violet squirrelfish’
MM:	Nakanai	<i>talaha</i>	‘k.o. fish’
MM:	Lihir	<i>taran</i>	‘ <i>S. spiniferum</i> , spinecheek squirrelfish’
MM:	Roviana	<i>ta-tara</i>	‘small reddish fish, easily hooked’
SES:	Gela	<i>talā</i>	‘ <i>S. spiniferum</i> , spinecheek squirrelfish’
NCV:	S Efate	<i>tra(kap)</i>	‘squirrelfish’
NCal:	Pije	<i>jalā</i>	‘ <i>Holocentrus spinifer</i> ’ [<i>S. spiniferum</i>]
NCal:	Jawe	<i>jarak</i>	‘ <i>H. spinifer</i> ’ [<i>S. spiniferum</i>]
PMic * <i>tarā</i> ‘squirrelfish’ (Bender et al. 2003)			
Mic:	Kiribati	<i>tā</i>	‘ <i>Sargocentron</i> spp.’
Mic:	Marshallese	<i>ceṛa</i>	‘ <i>Sargocentron</i> , <i>Myripristis</i> spp., squirrelfish’
Mic:	Ponapean	<i>sara</i>	‘ <i>S. spiniferum</i> , spinecheek squirrelfish’
Mic:	Chuukese	<i>sarā</i>	‘ <i>Sargocentron</i> sp., yellow-lined squirrel fish’
Mic:	Woleaian	<i>sezā</i>	‘ <i>Adioryx spinifer</i> , spiny squirrel fish’ [<i>S. spiniferum</i>]
Mic:	Puluwatese	<i>hara</i>	‘k.o. red fish’
PPn * <i>taʔa</i> ‘ <i>Sargocentron spiniferum</i> , armoured soldierfish’ (Hooper 1994)			
Pn:	Tongan	<i>taʔa</i>	‘ <i>S. spiniferum</i> , red, edible’
Pn:	Niuean	<i>tā</i>	‘ <i>Myripristis violacea</i> , lattice soldierfish’
Pn:	Pukapukan	<i>tā</i>	‘ <i>S. spiniferum</i> ’
Pn:	Samoa	<i>tā (malau)</i>	‘name given to certain fishes of genus <i>Sargocentron</i> when about 30 cm in length’. (See also under * <i>malau</i> below.)
Pn:	K’marangi	<i>tā</i>	‘ <i>S. ruber</i> , red squirrelfish’ [<i>S. rubrum</i>]
Pn:	Tokelauan	<i>tā</i>	‘ <i>S. spiniferum</i> ’
Pn:	Tuvaluan	<i>tā (malau)</i>	‘ <i>Adioryx</i> spp.’ [<i>Sargocentron</i>]
Pn:	Tikopia	<i>ta</i>	‘sea fish, app. related to large squirrelfish’

Because our supporting data are drawn from such a wide range of languages, the convention is adopted of prefixing each language name with the abbreviation for the genealogical or geographic group to which the language belongs, so that the distribution of a cognate set is more immediately obvious. Table 1.3 is a key to the labels. Figure 1.2 shows the positions of these groups in the Oceanic tree. We have sought to be consistent in always listing these groups in the same order, but contributors vary in the ordering of languages within groups.

Lynch’s recent research on Southern Oceanic (§3.2.3) renders the NCV group mildly anomalous, although there is no doubt that it reflects an integrated dialect network. There are a number of etyma whose reflexes are confined to North and Central Vanuatu, and so we continue to make ‘Proto North/Central Vanuatu’ reconstructions, even though these perhaps represent a Southern Oceanic term that has been lost in southern Vanuatu and New Caledonia. Where the distribution of reflexes requires it, the chapters in this volume include reconstructions for PROc and for PSOc. Etyma with these distributions were attributed to PEOc in volumes 1 and 2, but the distributions are transparent, thanks to the presence of the group labels in cognate sets.

In the interests of space we have not given the history of the reconstructions themselves, as this would often require commentary on the modifications made by others and by us, and

on why we have made them. Where a reconstruction is not new, we have tried to give its earliest source, e.g. ‘ACD’ above, but this is difficult when earlier reconstructions differ in form and meaning.

In general, the contributions to these volumes are concerned with items reconstructable in POc, PWOc, PEOc, PROc and occasionally Proto New Guinea Oceanic (PNGOc). Etyma for PWOc, PNGOc and PEOc are reconstructed because these may well also be POc etyma for which known reflexes are not well distributed (see discussion in §3.2.4). The contributors vary in the degree to which they reconstruct etyma for interstages further down the tree. Reconstructions for lower-order interstages are decreasingly likely to reflect POc etyma and may be the results of cultural change as Oceanic speakers moved further out into the Pacific.

Contributors have usually not sought to make fresh reconstructions at interstages superordinate to POc. What they have done, however, is to cite other scholars’ reconstructions for higher-order interstages, as these represent a summary of the non-Oceanic evidence in support of a given POc reconstruction. These interstages are shown in Figure 1.1, together with their abbreviations.

Sometimes non-Oceanic evidence has been found to support a POc reconstruction where no reconstruction at a higher-level interstage has previously been made. In this case a new higher-order reconstruction is made, and the non-Oceanic evidence is given in a footnote.

Whilst we have tried to use the internal organisation of the lexicons of Oceanic languages themselves as a guide in setting the boundaries of each terminology, we have inevitably taken decisions which differ from those that others might have made. There are, obviously, overlaps and connections between various semantic domains and therefore between the contributions here. We have done our best to provide cross-references, but we have sometimes duplicated information rather than ask the reader repeatedly to look elsewhere in the book. Indexes at the end of each volume and in the final volume are intended to make it easier to use the volumes collectively as a work of reference.

Table 1.3 Abbreviations for the genealogical or geographic groups

Yap:	Yapese (one language)
Adm:	Admiralty and Mussau/Tench
SJ:	Sarmi/Jayapura
NNG:	North New Guinea
PT:	Papuan Tip
MM:	Meso-Melanesian
SES:	Southeast Solomonian
TM:	Temotu
NCV:	North/Central Vanuatu, i.e. the reintegrated network formed by the North and Central Vanuatu linkages
SV:	Southern Vanuatu
NCal:	Loyalty and New Caledonia
Mic:	Micronesian
Fij:	Fijian, i.e. the reintegrated network formed by Western and Eastern Fijian dialects
Pn:	Polynesian

4.2 Data

Data sources are listed in Appendix 1.

For some reconstructed etyma only a representative sample of reflexes is given. We have endeavoured to ensure, however, that in each case this sample not only is geographically and genetically representative, but also provides evidence to justify the shape of the reconstruction. Where only a few reflexes are known to us, this is usually noted.

Although there are accepted or standard orthographies for a number of the languages from which data are cited here, all data are transcribed as far as possible into a standard phonemic orthography based on that used by Ross (1988: 3–4) in order to facilitate comparison.¹⁹ This means, for example, that the *j* of the German-based orthographies of Yabem and Gedaged becomes *y*, Yabem *c* becomes *ʔ*, Gedaged *z* becomes *ʔ* and so on; the *ng* of English-based orthographies becomes *ŋ*; and Fijian *g*, *q* and *c* become *ŋ*, *g* and *ɔ̃* respectively.

The following symbols have more or less their usual IPA values: *ɔ̃*, *g*, *y*, *h*, *k*, *l*, *L*, *ʔ*, *ʕ*, *m*, *n*, *ŋ*, *ɲ*, *p*, *q*, *χ*, *ʀ*, *r*, *s*, *t*, *w*, *x*, *z*, *ʔ*, *a*, *æ*, *e*, *ɛ*, *ə*, *i*, *ɪ*, *o*, *œ*, *ɔ̃*, *ʌ*, *u*, *u*. As far as possible, however, our orthography is phonemic and does not show allophonic variation, so that there are instances where a symbol does not have its usual phonetic value. For example, Wayan Fijian *k* is a voiceless stop word-initially but [k] is in free or stylistic variation with [ɣ] word-medially. The voiced stops *b*, *d*, *g* and the voiced bilabial trill *B* are prenasalised in some languages, but prenasalisation is not written unless it is phonemically distinctive. Where a language has just one rhotic, we usually write *r*, despite the fact that that rhotic is sometimes a flap. Other orthographic symbols (with values in IPA) are:

<i>f</i>	[ɸ, f]	voiceless bilabial or (less often) labio-dental fricative
<i>v</i>	[β, v]	voiced bilabial or (less often) labio-dental fricative
<i>c</i>	[ts], [tʃ]	voiceless alveolar or palatal affricate
<i>j</i>	[dʒ], [dʒ]	voiced alveolar or palatal affricate
<i>y</i>	[j]	palatal glide
<i>dr</i>	[ʀ]	prenasalised voiced alveolar trill (as in Fijian)
<i>ö</i>	[ø]	rounded mid front vowel
<i>ü</i>	[y]	rounded high front vowel

Other superscripts and diacritics are as follows:

- contrastive long vowels are represented by a macron, e.g. *ā*;
- contrastive vowel nasalisation in New Caledonian languages is represented by a circumflex, e.g. *â*;
- labialisation is marked by a superscript *w*, e.g. *p^w*;
- velarisation is marked by a superscript *u*, e.g. *p^u*;
- contrastive aspiration is marked by a superscript *h*, e.g. *p^h*;
- apicolabials are represented by the corresponding apical symbol and the linguolabial diacritic (the ‘seagull’), e.g. *ʔ̥*;
- retroflexes are represented by the corresponding apical symbol with a dot beneath, e.g. *ɹ̥*.

¹⁹ The main reason for retaining Ross’ orthography was that the electronic files initially used in this project were drawn in large part from those used in the research reported in Ross (1988).

Except for inflexional morphemes, non-cognate portions of reflexes, i.e. derivational morphemes and non-cognate parts of compounds, are shown in parentheses (...). Where an inflexional morpheme is an affix or clitic and can readily be omitted, its omission is indicated by a hyphen at the beginning or end of the base. This applies particularly to possessor suffixes on directly possessed nouns (vol.1, ch.2, §3.2). Where an inflexional morpheme cannot readily be omitted, then it is separated from its base by a hyphen. This may happen because of complicated morphophonemics or because the morpheme is always present, like the adjectival *-n* in some NNG and Admiralties languages and prefixed reflexes of the POc article **na* in scattered languages. When a reflex is itself polymorphemic (i.e. the morphemes reflect morphemes present in the reconstructed etymon) or contains a reduplication, the morphemes or reduplicates are also separated by a hyphen.

Languages from which data are cited in this volume are listed in Appendix B in their subgroups, together with an index allowing the reader to find the subgroup to which a given language belongs. Appendix B also includes alternative language names. The difficulty of deciding where the borderline between dialect and language lies, combined with the fact that these volumes contain work by a number of contributors, has resulted in some inconsistency in the naming of dialects in the cognate sets. Some occur in the form ‘Kara (E)’, i.e. the East dialect of the Kara language, or ‘Lukep (Pono)’, i.e. the Pono dialect of the Lukep language, whilst others are represented simply by the dialect name, e.g. Iduna, noted in Appendix B as ‘Iduna (= dialect of Bwaidoga)’.

4.3 Conventions used in representing reconstructions

Reconstructions are marked with an asterisk, e.g. **taRaqaŋ* ‘squirrelfish’, in keeping with the standard convention in historical linguistics. POc reconstructions, and also PWOC and PNGOC reconstructions, are given in the orthography of §3.4. For reconstructions at higher-order interstages the orthographies are those used by Blust in his various publications and the ACD. Reconstructions at lower-order interstages are given in the standard orthography adopted for data (§4.2). Geraghty’s (1986) PCP orthography, for example, is based on Standard Fijian spelling, and is converted into our standard orthography in the same way as Fijian spelling is. In practice, this means that the orthographies for PEOc, PROc and PCP are the same as for POc, except that a distinction between **p* and **v* is recognised and **R* is absent from PCP. Biggs and Clark’s PPn reconstructions are in any case written in an orthography identical to our standard. Bracketing and segmentation conventions in protoforms are shown in Table 1.4.

PMP final consonants are usually retained in POc in absolute word-final position. In many cases decisive evidence for retention or loss can be found in those Oceanic languages that usually retain final consonants. However, there are some cases where it is uncertain whether POc kept the PMP finals. This is so when a PMP etymon is not attested in an Oceanic language that consistently retains POc final consonants. An example is **-R* in PMP **kamaliR* ‘men’s house’, a term reflected in Oceanic only in certain languages that regularly lose POc final consonants. In such cases the consonant is reconstructed in parentheses (e.g. POc **kamali(R)*).

In presenting words that display anomalies of form, it is often necessary to posit an expected form. For example, in the cognate set supporting POc **taRaqaŋ* ‘squirrelfish’ in §4.1, the Loniū form *taʔay* is presented in support of PEOc **taRaqaŋ*. Given the reconstruction,

Table 1.4 Bracketing and segmentation conventions in protoforms

(x)	it cannot be determined whether x was present
(x,y)	either x or y was present
$[x]$	the item is reconstructable in two forms, one with and one without x
$[x,y]$	the item is reconstructable in two forms, one with x and one with y
$x-y$	x and y are separate morphemes
$x-$	x takes an enclitic or a suffix
$\langle x \rangle$	x is an infix

however, we would expect the Loni form to be *taya(?)*. In this volume we use a less widely employed convention and mark expected forms with a dagger, e.g. †*taya(?)*, to distinguish them both from reconstructions and real data.²⁰

Sometimes we need to refer to a reconstructed form that one would expect as the regular reflex of an established POc etymon, but which does not occur because an irregular sound change has occurred. In such cases the dagger and asterisk conventions are used together. For example, in ch.7, §4, we reconstruct POc **simuk* ‘mosquito, small biting fly’. Its Proto SE Solomonic reflex is reconstructed as **simi* (this is the form reflected by the SE Solomonic data), but the expected (regular) Proto SE Solomonic form, referred to in our discussion, is †**simu*, the regular reflex of POc **simuk*. The dagger marks it as expected but not attested to.

Sometimes a hypothetical POc form is marked in this way. In ch.7, §5, we cite PMP **nik-nik*, **ñik-ñik* ‘tiny biting insect: gnat, sandfly, fruitfly’. The expected POc form is †**ninik*, marked with a dagger because it does not actually occur. Instead, the Oceanic data require us to reconstruct the irregular form POc **niku-niku* ‘small biting fly’.

When historical linguists compile cognate sets they commonly retain word for word the glosses given in the sources from which the items are taken. However, again in the interests of standardisation, we have often reworded (and sometimes abbreviated) the glosses of our sources, while preserving the meaning. Where glosses were in a language other than English we have translated them. In the interests of space and legibility, and because data often have multiple sources, we have given the source of a reflex only when it is not included in the listings in Appendix A.

Sometimes we use the convention of providing no gloss beside the items in a cognate set whose gloss is identical to that of the POc (or other lower-order) reconstruction at the head of the set, i.e. the reconstruction which they reflect.

Where necessary, we use ‘(v)’, ‘(vI)’, or ‘(vT)’ to indicate that a gloss is a verb, intransitive verb or transitive verb, ‘(N)’ to indicate that it is a noun.

Within glosses we use the conventional abbreviations ‘k.o.’ (as in ‘k.o. yam’) for ‘kind of’, ‘s.o.’ for ‘someone’, ‘s.t.’ for ‘something’, ‘sp.’ for a species and ‘spp.’ for more than one species.

²⁰ Another convention sometimes used for this purpose is a double asterisk, e.g. ***taya(?)*: we prefer the dagger on aesthetic grounds.

In putting together cognate sets we have quite often found possible cognates which do not quite ‘fit’ the set: they display unexplained phonological irregularities or their meaning is just a little too different from the rest of the set for us to assume cognacy. Rather than eliminate them we often include them below the cognate set under the rubric ‘cf. also’.

5 Indexes

This volume has three indexes. The first, as in volumes 1 and 2, is an index of reconstructions arranged by their protolanguages. The second is an alphabetical list of reconstructions. The third is an index of animals by their English and Linnaean glosses.

2 *Fish*

MEREDITH OSMOND

1 Introduction

Proto Oceanic speaking communities subsisted on what they could grow and gather and what they could glean from the reef and sea.¹ Through their dependence on fishing, the inhabitants would have amassed knowledge of the environments favoured by particular fish, and awareness of fish habits as they related to such things as season of the year, the lunar and diurnal cycle, tidal movements, winds and currents. The times of certain fish to be fat, to be abundant, and to aggregate in a certain spot for spawning or feeding would have been marked.

This chapter deals mainly with the names of fishes. Paul Geraghty (1994) and Robin Hooper (1994) have provided a substantial starting point with their work on reconstructing fish names for Proto Central Pacific and Proto Polynesian respectively. Their data and lower-level reconstructions are reproduced here when included in a higher level reconstruction. Otherwise I simply record the existence of a PCP or PPn reconstruction.

In most Oceanic languages the lexicon of fish names is the largest of all faunal fields. The lists of local fish names available to me include almost 300 items for Mbunai Titan in the Admiralties (Akimichi & Sakiyama 1991), over 400 for both Marovo in the NW Solomons (Hviding 1996), and Wayan Fijian (Pawley & Sayaba 2003), 250 for Kapingamarangi in Polynesia (Lieber 1994) and around 400 for Satawalese in Micronesia (Akimichi & Sauchomal 1982). The evidence is overwhelming that knowledge of fish is, or has been until the breakdown of traditional lifestyles, extremely detailed, and one not restricted to a small group of people, but widespread among the majority of Oceanic communities.

A preliminary question that arises is: Do varieties of fishes in the tropical Pacific diminish in number the further one moves east from the major land masses? From linguistic evidence

¹ I am particularly grateful to Malcolm Ross who has spent many hours checking and suggesting solutions to problematic cognate sets, and to Paul Geraghty for a host of detailed comments. Andrew Pawley has also commented on earlier drafts and made many useful suggestions. Others who have contributed over the years that this work has been in progress include Simon Foale, Alexandre François, John Lynch, Alice Pomponio, the late Phil Quick, Kevin Salisbury, Ian Scales and David Walsh.

alone it appears that the major families continue to be represented throughout the region, but the number of genera and species diminishes. The greatest number of families noted in a wordlist available to me is from one of the more remote locations.²

Davis's listing for Chuuk (1999) records 71 of the 78 families included in my survey.³ Leach & Davidson (2000) have considered the question from an archaeological perspective. From fish remains identified from 24 different island groups in the tropical Pacific they list 48 families that were taken in any quantity by prehistoric people (p.414). Although they note signs of regional specialisation, they write that this 'cannot be explained by changes in natural abundance of fish types from one place to another' but is due rather to aspects of human behaviour (p.416). Thus it should be possible to reconstruct terms to at least the taxonomic level of family from the full range of linguistic subgroups including Micronesia and Polynesia, notwithstanding that the range of environment declines. This is in contrast to the land-based flora and fauna.

Although I have used western taxonomy as the basis of my classification, it should not be assumed that all Oceanic peoples used a similar system of organization. As an example, Edvard Hviding describes the system used by the people of the Marovo Lagoon, on the island of New Georgia, western Solomons. He writes:

Marovo fish taxonomy has a structure that differs considerably from Linnaean or western scientific taxonomy. For instance, a number of Marovo fish taxa are highly general "lump" categories that cover a considerable number of Linnaean species under one name. The term *kepe* (etymology uncertain) covers, without further specification, all (in western terms) 'butterflyfish' and 'coralfish', as well as any number of similar small, colorful reef fish with high and flat bodies. On the other hand, one Linnaean species may be subdivided in Marovo into a great number of named subtypes. One example is the skipjack tuna or *makasi*, which in Marovo has more than a dozen specific names that refer to growth stages, colorings, and more. Important food species are often finely subdivided in such a manner, in three-to-four-level taxonomic structures, while insignificant fishes, such as the small reef species just mentioned, are more commonly "lumped". This does not imply that Marovo fishers do not generally and readily distinguish between similar looking fish species. They have names for at least four hundred Marovo "species", and experienced people can easily single out and identify by name closely related fishes that differ only very subtly in color or general appearance. For example, at least twelve types of medium-sized parrotfish (no generic term in Marovo) are classified and named, as well as more than seventeen 'trevallies' [Carangids: *mara*] and at least twenty 'groupers' [Serranids: *pajara*] (Hviding 1996:192–193).

² Apart from general dictionaries and wordlists, the following lists of fish names were consulted: Andra, McEl-downey (1995); Chuukese, Davis (1999); Dobu, Lithgow (1975); Gela, Foale (1998); Kadavu Fijian, Kikusawa (1995); Kapingamarangi, Lieber (1994); Kiribatese, Thaman & Tebano (n.d.); Lau (of Malaita), Akimichi (1978); Lau Fijian, Paul Geraghty (pers. comm.); Motu, Oram (n.d.); Marovo, Hviding (1990, 1996, 2005); Marquesan, Lavondès (1977); Mbunai Titan, Akimichi & Sakiyama (1991); Misima, Kinch (1999); Mutu, Pomponio (n.d.); Nadrogā Fijian, Paul Geraghty (pers. comm.); Nduke, Ian Scales (pers. comm.); Niuatoputapu, Dye 1983; Ponam, Carrier (1982); Pukapuka, Kevin Salisbury (pers. comm.); Raga, David Walsh (pers. comm.); Satawalese, Akimichi & Sauchomal (1982); Teop, Shoffner (1976); Uvean (Wallisian), Rensch (1983).

³ Other totals recorded are 67 for Gela (SES), 66 for Wayan Fijian, 64 for Titan (Adm) and 62 for Satawalese (Mic).

Primary lexemes can denote a fish at the species, the genus or the family level, and occasionally, as with sharks and rays, suborders or even orders. Particular species are more likely to be separately named if they are distinctive in appearance, like the bump-headed parrotfish, or valued food, like the great barracuda. At the species level or lower, names are more likely to be binomial. Some may be multimorphemic, reflecting attributes such as similarity of appearance, habit (schooling or not), environment (e.g. bottom-dwellers, pelagic, fresh-water, estuarine, reef or deep sea dwellers), whether diurnal or nocturnal, and nastiness (poisonous to eat, stingers). Distinctive appearance may be reflected, with terms for head, nose, eye, spikes, filaments, similarity to sail or palm leaf and so on being incorporated into the name. In Polynesian languages some colour terms, particularly reflexes of PPn **tea* ‘white’, **quli* ‘black’, **kefu* ‘reddish-brown’, **kula* ‘red’ and **mea* ‘reddish’, are quite common. Wayan Fijian has *kati ni tanive*, lit. ‘biter of sardines’ for a medium sized trevally, after its feeding habits, while a scorpionfish whose poisonous spines can inflict severe pain is called *tañitani ga ua*, lit. ‘cry until high tide’. Niuean calls a species of parrotfish *mohe-aho* lit. ‘sleep by day’. Valued fish and fish whose appearance changes with age will often have names for particular growth stages. In Tonga, for instance, a species of mullet (*Valamugil cunnesius*) has six named stages, ranging from smallest to largest, *teʔevela*, *teʔekona*, *teʔefō*, *ʔunomoa*, *kanahe*, and *kanahe fau*.

A common difficulty in reconstructing the semantic range of a term is that although apparent cognate names may exist in, say, the Admiralties, the Solomons and Polynesia, the fishes bearing these names may belong to different species or genera. While some species are widespread, others are highly restricted in their geographic range, and the name of a fish in the Admiralties may well be given elsewhere to another species within the same family, or to an unrelated fish that resembles it in some aspect. As well, the western scientific taxonomy of fishes is subject to continuing revision and occasional name replacement. These are problems both for the wordlist compiler in identifying a fish by its Linnaean classification in addition to its common name, and for ourselves in tracing the somewhat fluid species association that a cognate set may produce.

2 Organisation

The cognate sets that follow are grouped in terms of Linnaean families and high order groupings. The ordering of groups substantially follows that of Ian Munro (1967) in his encyclopaedic volume *The Fishes of New Guinea*. However, since then there have been numerous revisions to fish taxonomy. In particular, I have been guided by the FISHBASE website (Froese & Pauly 2010) in tracing synonyms and revised scientific classification. Dictionary identifications have been retained, with any revision of terminology added in square brackets.

For descriptions of fish appearance and behaviour I have also relied heavily on Munro (1967) and Allen & Swainston (1993).

As frequent references are made to Geraghty 1994, Hooper 1994 and Munro 1967, the year is omitted and I refer to them respectively as Geraghty, Hooper and Munro.

Terms for fish parts are included in this chapter. Marine mammals have been included in chapter 5.

3 Fish (generic)

It is likely that the POc term **ikan* had both a narrow and a broad sense. The narrow sense applied to ‘typical’ fish, while the broad sense included some or all of the following: whales, dolphins, dugongs, eels, turtles, cephalopods and rays. Shellfish are generally excluded in daughter languages. See chapter 8 for a fuller discussion.

PAn **Sikan* ‘fish’ (ACD)

PMP **hikan* ‘fish’ (ACD)

POc **ikan* ‘fish (generic)’

Adm:	Nyindrou	<i>ni</i>	‘fish’
Adm:	Lenkau	<i>nik</i>	‘fish, excl. turtle, dolphin etc.’
Adm:	Penchal	<i>nii</i>	‘fish, including turtle, dolphin, whale, octopus’
NNG:	Gitua	<i>iga</i>	‘fish’
NNG:	Manam	<i>iʔa</i>	‘fish’
NNG:	Takia	<i>i</i>	‘fish’
NNG:	Yabem	<i>i</i>	‘fish’
PT:	Ubir	<i>ian</i>	‘fish’
PT:	Dobu	<i>iana</i>	‘fish’
PT:	Tawala	<i>iyana</i>	‘fish’
PT:	Kilivila	<i>yena</i>	‘fish’
MM:	Ramoaaina	<i>ian</i>	‘fish’
MM:	Nakanai	<i>ia</i>	‘fish (generic)’
MM:	Mono-Alu	<i>iana</i>	‘fish’
MM:	Roviana	<i>iyana</i>	‘fish (generic)’
MM:	Marovo	<i>iyana</i>	‘generic for all free-swimming creatures (e.g. fish, eels, stingrays, dolphins, whales, squids, jellyfish)’
SES:	Gela	<i>iya</i>	‘a creature of the sea: fish, mollusc, crayfish, whale, squid, sea anemone, etc.’
SES:	’Are’are	<i>iʔa</i>	‘fish (generic)’
SES:	Sa’a	<i>iʔe</i>	‘fish’
SES:	Arosi	<i>iʔa</i>	‘fish, including sharks, rays, porpoises and possibly other main animals’
SES:	Lau	<i>iʔa</i>	‘fish; any sea creature’ (Akimichi 1978:307 includes e.g. dugong, porpoise and whale)
SES:	Kwaio	<i>iʔa</i>	‘fish, porpoises, whales’
NCV:	Mota	<i>iya</i>	‘fish’
NCV:	Raga	<i>iyē</i>	‘fish, including whales and porpoises but not eels, seasnakes, octopus, squid, cuttlefish, jellyfish or balolo worms’
NCV:	NE Ambae	<i>ige</i>	‘typical fishes, rays and dolphins but not sharks and whales (which are grouped together), eels or cephalopods’ (Hyslop, pers. comm.)
NCV:	Nguna	<i>na-ika</i>	‘fish’
NCal:	Nemi	<i>nuk</i>	‘fish’
NCal:	Cèmuhî	<i>îkua</i>	‘fish’

Mic:	Kiribati	<i>ika</i>	‘fish: all swimming marine creatures including turtles, dugong, whales and porpoises, but not squid or octopus’
Mic:	Woleaian	<i>ix(a)</i>	‘fish’
Mic:	Chuukese	<i>īk</i>	‘general name for fish’
Mic:	Puluwatese	<i>yīk</i> , <i>yikan</i>	‘fish, porpoises, whales, but not squid’
Fij:	Rotuman	<i>iʔa</i>	‘fish: including also turtles, whales, alligators, etc., but not crabs, shellfish, etc.’
Fij:	Wayan	<i>ika</i>	(1) ‘fish, including eels, cetaceans, turtles and sometimes cephalopods’, (2) ‘true fish’
Fij:	Bauan	<i>ika</i>	‘fish, including also eels, turtles, cetaceans, cephalopods’
Pn:	Tongan	<i>ika</i>	‘fish, including also turtles (<i>fonu</i>) and whales (<i>tofuaʔa</i>), but not eels, cuttle-fish or jelly-fish’
Pn:	Niuatoputapu	<i>ika</i>	‘fish, including eels, turtles, cetaceans, cephalopods’
Pn:	Niuean	<i>ika</i>	‘fish, whales and dolphins’
Pn:	Rennellese	<i>ika</i>	‘fish, turtle’
Pn:	Samoaan	<i>iʔa</i>	‘fish (including turtles and whales)’
Pn:	Tikopia	<i>ika</i>	‘general category with reference to fish, but including allied creatures like turtle, cetaceans’
Pn:	Ifira-Mele	<i>ika</i>	‘fish, whale, porpoise but not turtles, eels or octopus’
Pn:	Rarotongan	<i>ika</i>	‘fish (generic)’
Pn:	Tahitian	<i>iʔa</i>	‘fish, including porpoise, whale, turtle, octopus’
Pn:	Māori	<i>ika</i>	‘fish’
Pn:	Hawaiian	<i>iʔa</i>	‘fish or any marine animal, as eel, oyster, crab, whale; meat or any flesh food’

4 Sharks: Carcharhinidae, Sphyrnidae etc

In this section and in §5 on rays, I am dealing with sub-orders rather than families. Kailola (1987) lists twelve shark families, the best-known probably being Carcharhinidae, the largest, with tiger sharks, black-tip and white-tip sharks among its species, and Sphyrnidae, hammer-heads.

Most sharks inhabit shallow coastal waters around reefs. A number of species are regarded as dangerous, but in parts of the southeast Solomons sharks are thought to be the ghosts of men and are considered sacred. I have reconstructed one possible generic term, **bakewa*, its cognates widespread, but undergoing a change of meaning in Central Pacific. Reflexes of **maŋewa* have replaced **bakewa* as the generic term in Polynesia. In Motu and Fiji the reflex of a POC term for shark has come to be applied instead to the remora or sucker fish which attaches itself to sharks and other large sea creatures (§65). This is the case with Motu *mayoa* and PCP **bakewa*. Tolai *gul* can be used to refer to either a ‘k.o. striped shark (tiger shark?)’ or ‘the pilotfish *Nucrates ductor*’, a fish which also stays in the close vicinity of sharks.

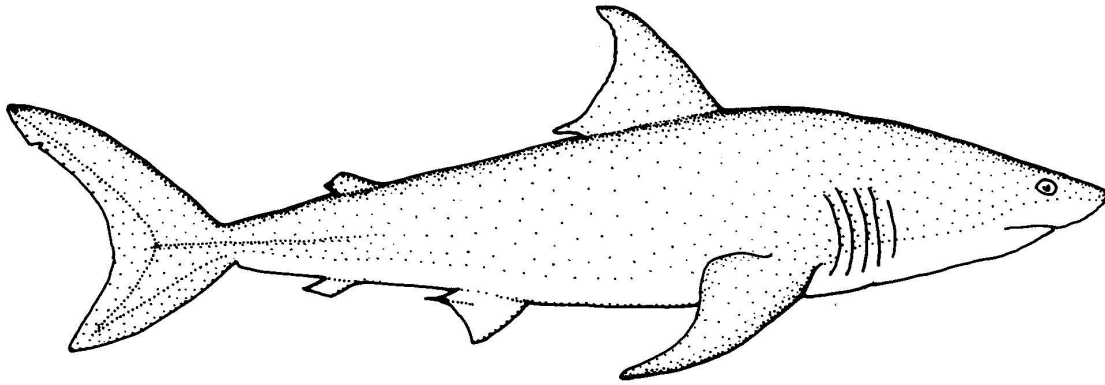


Figure 2.1 *Carcharodon carcharias*, great white shark

Proto Oceanic speakers undoubtedly distinguished many different species of sharks by name, as contemporary Oceanic speech communities do, but reconstructed terms have not been clearly identified with particular species at a level higher than Proto Central Pacific.

Cognates in the following set from the Admiralties, Papuan Tip, SE Solomons and Micronesia provide the strongest evidence for **bakewa* as the generic term for ‘shark’ in POc.

POc **bakewa* ‘shark (generic)’

Adm:	Mussau	<i>baio</i>	‘shark’
Adm:	Loniu	<i>pew</i>	‘shark, generic. Used as first element in compound terms for kinds of’
Adm:	Nyindrou	<i>beʔeu</i>	‘shark’
Adm:	Titan	<i>peu</i>	‘shark’
Adm:	Lenkau	<i>paheu</i>	‘shark (generic)’
NNG:	Yabem	<i>yak^wa</i>	‘shark’
NNG:	Kove	<i>vayewa</i>	‘shark’
NNG:	Bariai	<i>bakewa</i>	‘shark’
NNG:	Wogeo	<i>bagewa</i>	‘shark’ (g for †k)
PT:	Wedau	<i>vayewa</i>	‘shark’
PT:	Duau	<i>baewa</i>	‘shark’
PT:	Misima	<i>baewa</i>	‘shark (generic)’
PT:	Sinaugoro	<i>bayewa</i>	‘shark’
MM:	Patpatar	<i>baiawa</i>	‘shark’
MM:	Lungga	<i>bayea</i>	‘shark’
SES:	Gela	<i>bayea</i>	‘k.o. shark, basking shark’
		<i>bake-bake</i>	‘ <i>Carcharhinus melanopterus</i> , blacktip reef shark’
SES:	Lau	<i>baek^wa</i>	(1) ‘general term for shark’, (2) ‘any dreaded animal, crocodile, swordfish, poisonous snake etc’
SES:	Arosi	<i>baʔewa</i>	‘shark. The shark was sacred. Men had familiar sharks which killed their enemies. A man and a shark sometimes exchanged souls’
SES:	Sa’a	<i>paʔewa</i>	(1) ‘shark’, (2) ‘generic term for all sea-ghosts, incarnations where sharks or swordfish or gropers are in question’

SES:	Kwaio	<i>baʔek^wa</i>	‘shark (generic)’
SES:	Kahua	<i>pagewa</i>	‘shark (generic)’
NCV:	Lo-Toga	<i>pəyewa</i>	‘shark’
NCV:	Mota	<i>payoa</i>	‘shark’
NCV:	Mwotlap	<i>bayo</i>	‘Carcharhinidae spp.’
NCV:	Namakir	<i>bake</i>	‘shark’
NCV:	S Efate	<i>pako</i>	‘shark’
SV:	Ura	<i>(u)beu</i>	‘shark’
SV:	Anejoñ	<i>ne-pyev</i>	‘shark’
Mic:	Kiribati	<i>bakoa</i>	‘shark (generic)’
Mic:	Marshallese	<i>pako</i>	‘shark’
Mic:	Ponapean	<i>pako</i>	‘shark (generic)’
Mic:	Woleaian	<i>paxow</i>	‘shark’

PCP **bakewa* ‘k.o. fish that accompanies sharks’

Fij:	Bauan	<i>bākewa</i>	‘remora or sucking fish’
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PPn **pakewa* ‘*Carangoides ferdau jordan*’ (Hooper: *Carangoides orthogrammus*)

Pn:	Tuvalu	<i>pakeva</i>	‘fish sp., <i>Carangoides orthogrammus</i> ’
Pn:	Pukapukan	<i>pakeva</i>	‘ <i>C. orthogrammus</i> ’
Pn:	Takuu	<i>pakeva</i>	‘name of principal sea deity’
Pn:	Tokelauan	<i>pakeva</i>	‘black-spot jack, <i>Carangoides ferdau jordan</i> ’
Pn:	Tuamotuan	<i>pakeva</i>	‘k.o. fish’

cf. also:

TM:	Buma	<i>boe~b^woe</i>	‘shark’
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In Polynesian languages, reflexes of PPn **pakewa* usually refer to a trevally (belonging to the same family as *Naucrates ductor*, the pilot fish), while reflexes of PPn **mañō* are the generic term for shark.

The next reconstruction, POc **mañewa* ‘shark’, appears to be a variant of **bakewa* in which the stops are replaced by nasals. It is impossible to know how such a variant might have arisen, but the probability of two formally parallel homonymous trisyllables arising by chance is extremely low (Nichols 1996:50–51).

The reconstruction **mañewa* assumes that segment coalescence has occurred in both Motu and the SES languages. Motu *mayoa* reflects coalescence of **-ew-* as *-o-*, SES *mañeo* coalescence of **-wa* as *-o*. Note that a similar change occurred in NCV and Micronesian reflexes of **bakewa*.

POc **mañewa* ‘k.o. shark’

PT:	Motu	<i>mayoa</i>	‘suckerfish: <i>Phtheichthys lineatus</i> , <i>Echeneis naucrates</i> , <i>Remora remora</i> ’
MM:	Tomoip	<i>mañ(gel)</i>	‘shark’
MM:	Tolai	<i>moñ</i>	‘common shark, <i>Carcharinus</i> sp.’
SES:	To’aba’ita	<i>mañeo</i>	‘sp. of small shark’
SES:	Lau	<i>mañeo</i>	‘k.o. sea snake’ (also <i>baek^wa</i> ‘shark’, <i>baek^wa i asi</i> ‘sea snake’)

PPn **mañō* ‘general term for shark spp.’ (Hooper)

Pn:	Niuean	<i>mañō</i>	‘shark (generic)’
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Pn:	Pukapukan	<i>maŋō</i>	‘shark (generic)’
Pn:	Rennellese	<i>maŋō</i>	‘shark (generic)’
Pn:	Samoan	<i>maŋō</i>	‘k.o. shark’
Pn:	Tuvalu	<i>maŋō</i>	‘shark’
Pn:	Tokelauan	<i>maŋō</i>	‘shark’
Pn:	K’marangi	<i>moŋo(henua)</i>	‘grey shark’
Pn:	Tikopia	<i>maŋō</i>	‘shark (generic)’
Pn:	Tahitian	<i>maʔo</i>	‘shark (generic)’
Pn:	Māori	<i>maŋō</i>	‘shark (generic)’
Pn:	Hawaiian	<i>manō</i>	‘shark (generic)’

cf. also:

Mic:	Puluwatese	<i>məŋo(wur)</i>	‘k.o. shark’
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Reflexes of **k^warawa* serve as a generic term in parts of WOc, but in Polynesia refer to specific species.

POc **k^warawa* ‘k.o. shark’

NNG:	Gitua	<i>arawa</i>	‘shark’
NNG:	Kove	<i>kaluya</i>	‘shark’ (borrowed from Bali below?)
NNG:	Mutu	<i>korau</i>	‘generic for several shark spp.’
PT:	Dobu	<i>k^walawa</i>	‘shark, general name’
PT:	Muyuw	<i>k^waw</i>	‘shark’
PT:	Kilivila	<i>k^wau</i>	‘shark’
PT:	Lala	<i>olava</i>	‘shark (generic)’
PT:	Motu	<i>karava</i>	‘k.o. fish’
MM:	Bali	<i>kaluya</i>	‘shark’
MM:	Vitu	<i>kaliya</i>	‘shark’
NCal:	Nixumwak	<i>ārau</i>	‘k.o. shark’
Fij:	Rakiraki	<i>karawa</i>	‘ <i>Isurus</i> , mako shark’ (Paul Geraghty pers. comm.)

PPn **qalawa* ‘k.o. shark’

Pn:	E Uvean	<i>ʔalava</i>	‘ <i>Carcharhinus limbatus</i> , black-tipped shark’
Pn:	Tongan	<i>ʔalava</i>	‘k.o. shark’ (marked with a wavy stripe)
Pn:	Rennellese	<i>ʔagaba</i>	‘large shark, probably black-tip or mullet shark, <i>C. melanopterus</i> ’
Pn:	Samoan	<i>alava</i>	‘k.o. shark’
Pn:	Tuvalu	<i>alava</i>	‘ <i>C. longimanus</i> , white-tipped shark’
Pn:	K’marangi	<i>alawa</i>	‘ <i>C. longimanus</i> , Oceanic white-tipped shark’
Pn:	Māori	<i>arawa</i>	‘k.o. shark’

Geraghty (p.143) also lists PCP **qaso* ‘k.o. large shark, *Carcharhinus* sp.’ If the Taiof and Halia terms below are cognate, then POc **kaso(r;R)* is reconstructable.

PCP **qaso* ‘k.o. large shark’

Fij:	Bauan	<i>yaso</i>	‘k.o. shark, male, savage, big belly, short body’
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PPn **qaso* ‘shark sp.’ (Hooper)

Pn:	Tongan	<i>ʔaho</i>	‘k.o. shark’
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Pn:	Pukapukan	<i>ayou</i>	‘large deep-sea shark’ (final <i>-u</i> irregular)
Pn:	Samoa	<i>aso</i>	‘ <i>Carcharhinus</i> , white-tipped shark’ (Rensch 1999:19)
Pn:	Tokelauan	<i>aho</i>	‘huge, clumsy grey deep-sea fish about 5 metres long, probably shark family’
Pn:	Māori	<i>aho-aho</i>	‘a fish’
cf. also:			
MM:	Taiof	<i>kas</i>	‘shark’
MM:	Halia	<i>kosoro</i>	‘brown man-eating shark, plentiful around Nissan and associated with sorcery’

Languages frequently use binomial terms to refer to particular shark species, although sometimes the generic first element is regarded as optional. Fijian (unspecified) uses *gio*⁴ + modifier, e.g. *gio uvi* ‘*Carcharhinus plumbeus*, sandbar shark’, *gio daniva* ‘*Galeocerdo*, tiger shark’, *gio uluvai* ‘hammerhead shark’ (Geraghty pers. comm.). Modifiers tend to develop independently in different languages, although elements recur. Two of the Fijian modifiers, *uvi* and *daniva*, are found also in Polynesian terms, PPn **nai-ufi* ‘k.o. large shark, probably tiger or grey reef shark’ and PPn **tanifa* ‘tiger shark’. The latter is remarkably a reflex of POc **tanipa* ‘sardine’ (§7), presumably because of similar iridescent zigzag vertical lines on both tiger sharks and sardines (Geraghty p.143).

Probably because of similar wavy iridescent lines on the sides of spanish mackerel, also a large predatory fish, reflexes of POc **tañiri* ‘Spanish mackerel’ (§57) have been incorporated into names for a kind of shark in Muyuw (PT) and Marovo (MM).

PT:	Muyuw	<i>tagili gal</i>	‘shark’
MM:	Marovo	<i>kiso tañiri</i>	‘ <i>Galeocerdo cuvier</i> , tiger shark, the most dangerous shark in Marovo’

An obviously descriptive name, PCP **mata qi taliŋa* ‘eyes of ears’ is used in Central Pacific languages to refer to the hammerhead shark, although the term has been lost in Eastern Polynesian. In Molima (PT), this shark is referred to as *mata balabala*, literally ‘eyes crosswise’, while in Gela (SES) it is *bayea papala vohe* ‘paddle-handle shark’.

⁴ Geraghty (1994) has **giō*.

5 Rays: stingrays (Dasyatidae), eagle rays (Myliobatidae), manta rays (Mobulidae)

Stingrays and eagle rays inhabit sandy bottoms in the vicinity of coral reefs, and are common in estuaries where there is abundant mud. Eagle rays are so named because of their wide flaps and ability to leap from the water. Manta rays rank among the largest known fishes. They are specialised in having largely abandoned the bottom-living habit and usually swim near the surface, often leaping from the water. Manta rays inhabit open ocean, and are seldom seen near shore.

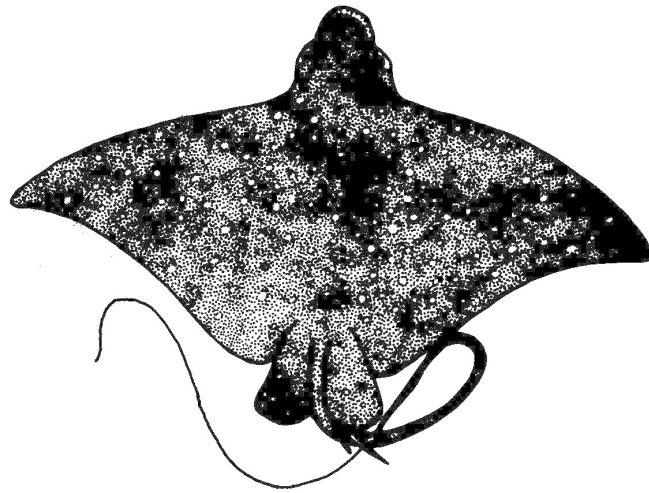


Figure 2.2 *Aetobatis narinari*, spotted eagle ray

Reflexes of POc **paRi* are numerous and widespread. It seems that the POc term had both a generic and a specific sense. Although most of the reflexes listed below are glossed ‘stingray’, **paRi* is used as the first element in compound terms for rays other than stingrays (see **paRi-manuk* below). The same pattern occurs in Marovo (NW Solomonian) where *tape* is the term both for stingrays and other rays in general, giving rise to compounds like *tape kurukuru* ‘spotted eagle ray, *Aetobatus narinari*’.

Oceanic languages usually distinguish several taxa, typically binomials, **paRi* + modifier.

PAn **paRiS* ‘stingray’ (ACD)

POc **paRi* (1) ‘stingray’, (2) ‘ray (generic)’

Adm:	Mussau	<i>pe</i>	‘stingray’
Adm:	Titan	<i>pei</i>	‘ray’
Adm:	Nali	<i>pei</i>	‘stingray’
Adm:	Bipi	<i>pay</i>	‘stingray’
Adm:	Wuvulu	<i>pai</i>	‘stingray’
Adm:	Nyindrou	<i>bei</i>	‘stingray’
NNG:	Gitua	<i>par</i>	‘stingray’
NNG:	Manam	<i>paru</i>	‘stingray’
NNG:	Bariai	<i>pali</i>	‘stingray’
NNG:	Mangap	<i>par</i>	‘stingray’
PT:	Dobu	<i>ali</i>	‘stingray’
PT:	Molima	<i>vali</i>	‘stingray’
PT:	Tawala	<i>wali</i>	‘stingray’
PT:	Kilivila	<i>vai</i>	‘stingray’
MM:	Tolai	<i>var</i>	‘fish of the ray species’
MM:	Minigir	<i>vari</i>	‘stingray’

MM:	Tabar	<i>vari</i>	‘stingray’
MM:	Patpatar	<i>har</i>	‘ray’
MM:	Roviana	<i>vari</i>	‘wood rasp’ (from skin of sandpaper ray?)
MM:	Marovo	<i>vari(popolo)</i>	‘bull ray, <i>Mylobatus</i> sp.’
SES:	Gela	<i>vali</i>	‘ray, skate’
SES:	Arosi	<i>hari</i>	‘a fish, ray’ (<i>mara-hari</i> ‘k.o. shark’)
SES:	Lau	<i>fali</i>	‘general term for rays’
SES:	Kwaio	<i>fali</i>	‘ray (fish) (generic)’
NCV:	Mota	<i>var, vari</i>	‘stingray’
NCV:	NE Ambae	<i>vari</i>	‘stingray’
NCV:	Raga	<i>vari</i>	‘blue-spotted stingray’
SV:	Sye	<i>(u)var</i>	‘stingray’
SV:	Ura	<i>(u)var</i>	‘stingray’
NCal:	Nemi	<i>pe</i>	‘stingray’
NCal:	Ajië	<i>pe</i>	‘stingray’
NCal:	Xârâcùù	<i>pe</i>	‘stingray’
NCal:	Iaai	<i>ve</i>	‘stingray’
Mic:	Puluwatese	<i>fæyi</i>	‘ray fish’
Mic:	Woleaian	<i>fai(ya)</i>	‘file (a tool); rayfish (general term)’
Fij:	Rotuman	<i>hai</i>	‘stingray’
Fij:	Bauan	<i>vai</i>	‘a ray or skate’
Fij:	Wayan	<i>vai</i>	‘generic for stingrays, manta or devil rays and eagle rays’

PPn **fai* ‘stingray, general term’

Pn:	Tongan	<i>fai</i>	‘skate or stingray’
Pn:	E Uvean	<i>fai</i>	‘stingray’
Pn:	Samoan	<i>fai</i>	‘stingray’
Pn:	Pukapukan	<i>wai</i>	‘stingray’
Pn:	Rennellese	<i>hai</i>	‘generic for rays and skate-like fishes’
Pn:	Tikopia	<i>fai</i>	‘various rays’
Pn:	Tahitian	<i>fai</i>	‘stingray’
Pn:	Hawaiian	<i>hai(lepo)</i>	‘stingray’

PMP **paRih manuk* ‘? ray’ (presumably ‘eagle ray’) (ACD)

POc **paRi-manuk* ‘*Aetobatus narinari*, spotted eagle ray’ (**manuk* ‘bird’)

PT:	Dobu	<i>ali manu(wa)</i>	‘eagle ray’
MM:	Patpatar	<i>har man</i>	‘spotted eagle ray’

PEOc **vaRi manu* ‘*Aetobatis narinari*, eagle ray’ (Geraghty1990)

SES:	Kwaio	<i>fali manu</i>	‘manta ray’
SES:	’Are’are	<i>hari manu</i>	‘spotted eagle ray’
SES:	Arosi	<i>hari manu</i>	‘eagle ray’
SES:	Bauro	<i>hari manu</i>	‘eagle ray’
Fij:	Bauan	<i>vai manu</i>	‘skate or ray’

PPn **fai-manu* ‘*Aetobatis narinari*, eagle ray’ (Hooper)

Pn:	Tongan	<i>fai manu</i>	‘eagle ray’
Pn:	Samoan	<i>fai manu</i>	‘ray sp.’
Pn:	Tuvalu	<i>fai manu</i>	‘spotted eagle ray’
Pn:	K’marangi	<i>hai manu</i>	‘ <i>Aetobatis</i> sp., eagle ray’
Pn:	Tahitian	<i>fai manu</i>	‘eagle ray’
Pn:	Māori	<i>whai manu</i>	‘eagle ray’

Banks Islands languages (North Vanuatu) support Proto Banks **vaRi mala* ‘eagle ray’, where the term for ‘hawk’ rather than ‘bird’ is the modifier (Alexandre François, pers. comm.).

Reflexes of POc **Ropok* ‘to fly’ are sometimes used in compounds to distinguish rays that leap from the water. Examples are Nakanai (MM) *kova lovo-lovo* ‘ray with two wings’ (*kova* ‘stingray’) and Gela (SES) *vali-lovo* ‘eagle ray, manta ray, devil ray’.

Lower level reconstructions include PCP **vai bek^wa*, PPn **fai peka* ‘*Aetobatis narinari*, spotted eagle ray’ (PCP **bek^wa* ‘bat’) (Geraghty p.144); PPn **fai kili* ‘sandpaper ray’ (probably *Himantura granulata*, Dasyatidae) (**kili* ‘file’); and PNPn **fāfā-lua* ‘*Manta birostris*, manta ray’ (lit. ‘full of holes’, presumably a description of the pitted appearance of the skin), the latter two from Hooper (p.197).

6 Bonefishes (Albulidae) and tarpons (Elopidae, formerly Megalopidae)

Bonefishes are coastal fishes, moderately sized and brilliantly silver, which often congregate in large schools. They are generally valued as food, but have many fine bones. Tarpons are also moderately large coastal game fishes which ascend rivers in search of food. The flesh is tough, with numerous fine bones. They are renowned as active strong fighters capable of swift movement, leaping ability and great endurance (Munro p.41).

The two families are treated together because the second reconstruction below, POc **pu-pulan*, is based on cognates referring to both and seems a broader term than POc **kuRo*; bonefishes and tarpons are similar in colour and habitat, and both are marked by the presence of many fine bones.

PMP **kuRaw* ‘edible marine fish’ (ACD: PWMP **kuRaw*)

POc **kuRo* ‘bony fish, probably *Albula*’

MM:	Tolai	<i>kura</i>	‘k.o. fish’
SES:	Gela	<i>gulo</i>	‘k.o. fish’
NCal:	Nyelâyü	<i>yhu</i>	‘ <i>Albula vulpes</i> ’
Mic:	Puluwatese	<i>kuwə</i>	‘k.o. small fish’
Fij:	Rotuman	<i>ʔuo</i>	‘ <i>Albula</i> ’
Fij:	Bauan	(<i>yawa</i>) <i>kio</i>	‘ <i>Albula</i> ’ (<i>yawa</i> ‘ <i>Chanos chanos</i> ’)
Fij:	Lau	<i>kikio</i>	‘ <i>Albula</i> ’

PPn **kiokio* ‘*Albula vulpes*, bonefish’ (Hooper)⁵

⁵ Geraghty comments that the vowel sequence *-uo* is rare in Central Pacific languages, and suggests that PPn **-io* may be regularly derived (pers. comm.).

Pn:	Tongan	<i>kio-kio</i>	‘ <i>Albula vulpes</i> , bonefish’
Pn:	Tokelauan	<i>kio-kio</i>	‘ <i>Albula vulpes</i> , bonefish’
Pn:	Tikopia	<i>kio-kio</i>	‘ <i>Chanos chanos</i> , milkfish’ (also a bony fish)
Pn:	Mangarevan	<i>kio-kio</i>	‘ <i>Albula vulpes</i> , bonefish’
cf. also:			
NNG:	Kove	<i>koha</i>	‘bonefish’
PMP <i>*bulan-bulan</i> ‘a white fish, <i>Megalops cyprinoides</i> ’ (ACD)			
POc <i>*pu-pulan</i> ‘bony fish, <i>Megalops</i> , <i>Albula</i> spp.’ ⁶			
NNG:	Gitua	<i>vu-vula</i>	‘spotted herring’
NNG:	Mutu	<i>ublan</i>	‘herring’ (metathesis)
PT:	Motu	<i>hu-hula</i>	‘fish sp.’
MM:	Marovo	<i>vulu</i>	‘ <i>Albula vulpes</i> , bonefish, found in mangrove pools’ (-u unexplained)
NCal:	Nemi	<i>pulōn</i>	‘ <i>Megalops cyprinoides</i> ’
NCal:	Iaai	<i>hu</i>	‘ <i>Albula vulpes</i> , large’
PCP <i>*vula</i> ‘ <i>Megalops</i> ’ (Geraghty)			
Fij:	Wayan	<i>(a)vula</i>	‘fish, possibly <i>Megalops cyprinoides</i> ’
Fij:	Bauan	<i>vū-vula</i>	‘ <i>Megalops cyprinoides</i> , white, bony to eat, easily chokes people’
Fij:	Kadavu	<i>vū-vula</i>	‘ <i>Megalops</i> ’
Fij:	Nadroga	<i>(ya)vula</i>	‘ <i>Megalops</i> ’
cf. also:			
Mic:	Mokilese	<i>pallau</i>	‘tarpon’

7 Sardines and herrings (Clupeidae) and anchovies (Engraulidae)

Sardines and herrings are small migratory fishes which congregate in enormous shoals in shallow coastal waters. Flesh is oily but tasty (Munro p.50). They are taken in nets in Oceanic communities.

Anchovies also live in large schools in coastal waters and estuaries. They have a long slender maxillary (upper jaw) and protruding snout, and most are silvery or have a bright silvery lateral band. Some species migrate seasonally, and the schools come close inshore where they can be captured with seines (Munro p.43).

In the cognate sets which follow, terms show some crossover of meaning between sardines and anchovies. This is most likely due to looseness of definition of the English terms by the

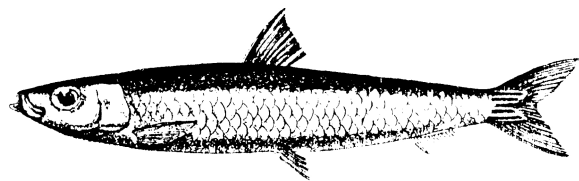


Figure 2.3 *Spratelloides delicatulus*, small round herring

⁶ An association with POc **pulan* ‘moon’ is suggested, possibly a reference to its silvery colour.

wordlist compilers, but it is possible that the two families are regarded as sufficiently similar in some languages for one term to cover both. The fact that we can reconstruct six POc terms indicates that speakers differentiated between the referents in some regard.

PMP **paya* ‘k.o. small fish, sardine or anchovy’ (ACD)

POc **paya* ‘k.o. small fish, sardine or anchovy’

Adm:	Nyindrou	<i>ba</i>	‘k.o. small fish’
Adm:	Ponam	<i>pa</i>	‘anchovy’
NNG:	Gitua	<i>paya</i>	‘anchovy, pilchard’
NNG:	Mutu	<i>pai</i>	‘anchovy spp.’
NNG:	Manam	<i>waya-wayā</i>	‘sardine’
PT:	Bunama	<i>haya</i>	‘k.o. anchovy’ (Mueller)
PT:	Saliba	<i>haya</i>	‘k.o. fish’
PT:	Dobu	<i>(ʔa)aya</i>	‘k.o. anchovy’
PT:	Kilivila	<i>vaya</i>	‘k.o. fish’
MM:	Patpatar	<i>haia</i>	‘k.o. fish, small, black’
MM:	Nehan	<i>wai</i>	‘fish fry, anchovy?’
NCal:	Nemi	<i>bac</i>	‘sardine’
NCal:	Nêlêmwa	<i>ba</i>	‘sardine’

PCP **vaya* ‘k.o. small school fish’ (Geraghty: ‘k.o. anchovy’)

Fij:	Bauan	<i>vaya</i>	‘small fish like the <i>daniva</i> (similar to a sardine), but with a red tail’
Fij:	Lau	<i>vaya</i>	‘ <i>Thrissina baelama</i> ’
Fij:	Kadavu	<i>vaya</i>	‘k.o. school fish’
Pn:	Samoa	<i>fā</i>	‘ <i>Megalops</i> (tarpon), found in marshes and river mouths’

POc **jaja* ‘small fish, herring or anchovy’

NNG:	Bing	<i>(yiy)zaz</i>	‘k.o. fish, Clupeidae’ (<i>yiy</i> ‘fish’)
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PCP **ðaðā* ‘*Spratelloides* sp.’ (Geraghty)

Fij:	Verata	<i>ðaðā</i>	‘ <i>Spratelloides</i> ’
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PPn **sasā* ‘anchovy’ (Hooper: ‘*Spratelloides* sp.’ [herring])

Pn:	Tongan	<i>hahā</i>	‘k.o. small fish, anchovy’
Pn:	E Uvean	<i>hahā</i>	‘k.o. fish’
Pn:	Tokelauan	<i>hahā</i>	‘k.o. sprat’
Pn:	Tikopia	<i>sā</i>	‘small reef fish of anchovy type’

In the next cognate set, there is reasonable consistency of meaning as far east as Fiji, but Polynesian reflexes undergo a striking change of meaning, referring to a kind of shark with similar markings to sardines (see p.33). Polynesian terms for sardine, together with a number of Fijian terms, have the same form minus the first syllable.

POc **tanipa* ‘*Sardinella* spp., sardine’

Adm:	Loniu	<i>tenih</i>	‘sardine’
Adm:	Nyindrou	<i>drañip</i>	‘sardine’

Adm:	Ponam	<i>hañef</i>	‘anchovy’
PT:	Bunama	<i>taniha(na)</i>	‘k.o. herring’ (Mueller 1985)
PT:	Kilivila	<i>taninuva</i>	‘sardine’ (for † <i>taniva</i>)
PT:	Gumawana	<i>taninava</i>	‘goldspot herring’ (for † <i>taniva</i>)
NCV:	Raga	<i>tanive</i>	‘ <i>Hyperlophus vittatus</i> , sandy sprat’
NCV:	Tamambo	<i>tanive</i>	‘sardine’
NCV:	Uripiv	<i>daniv</i>	‘sardine’
Mic:	Puluwatese	<i>hanif</i>	‘anchovy’
Mic:	Chuukese	<i>senif</i>	‘ <i>Herklotsichthys quadrimaculatus</i> , goldspot herring’

senifana ‘sardine’

Mic: Ponapean *saip* ‘sardine’

PCP **taniva* ‘*Sardinella*’ (Geraghty)

Fij:	Nadroga	<i>tanive</i>	‘ <i>Herklotsichthys</i> ’
Fij:	Wayan	<i>tanive</i>	‘generic for a number of species of small sardine-like fish’
Fij:	Kadavu	<i>daniva</i>	‘schooling fish’

PPn **tanifa* ‘fierce shark’

Pn:	Tongan	<i>tanifa</i>	‘k.o. large man-eating shark’
Pn:	Niuean	<i>tenifa</i>	‘general name for shark’
Pn:	E Uvean	<i>tanifa</i>	‘k.o. shark’
Pn:	Pukapukan	<i>taniwa</i>	‘fierce shark’
Pn:	Samoaan	<i>tanifa</i>	‘large man-eating shark’
Pn:	Tahitian	<i>tanifa</i>	‘k.o. fish’
Pn:	Māori	<i>tanifa</i>	‘shark or any formidable marine creature’ (<i>manō tanifa</i> ‘white pointer shark’)

PCP **niva* ‘*Sardinella* spp.’ (Geraghty)

Fij:	Verata	<i>niva</i>	‘ <i>S. melanura</i> , <i>S. fijiense</i> ’
Fij:	Ovalau	<i>niva</i>	‘ <i>S. melanura</i> , <i>S. fijiense</i> ’
Fij:	Nadroga	<i>nive-nive</i>	‘ <i>S. fijiense</i> ’

PPn **nifa* ‘*Sardinella* sp.’ (Hooper)

Pn:	E Uvean	<i>nifa</i>	‘k.o. fish’
Pn:	Tahitian	<i>nifa</i>	‘k.o. spotted fish’
Pn:	Tuamotuan	<i>nifa</i>	‘juvenile <i>Albula</i> ’
Pn:	Marquesan	<i>nifa</i>	‘ <i>Sardinella marquesensis</i> ’

POc **k^waru* ‘*Sardinella*, sardine’

Adm:	Titan	<i>k^wal</i>	‘sardine’
MM:	Marovo	<i>karu(mehe)</i>	‘anchovy, found in river mouths’
Mic:	Marshallese	<i>k^war^{uu}-k^war^{uu}</i>	‘sardine’

POc **kep^wa* ‘Clupeidae, probably sardine sp.’

Adm:	Titan	<i>kepai</i>	‘sardine-like fish’ (-i unexplained)
MM:	Halia	<i>keho-keho</i>	‘dark blue sardine’
MM:	Marovo	<i>kevo</i>	‘ <i>Stolephorus</i> sp., anchovy’
MM:	Maringe	<i>k^hefo</i>	‘sardine’
SES:	Gela	<i>kepo</i>	‘ <i>Herklotsichthys quadrimaculatus</i> , fourspot herring’
SES:	Lau	<i>kefo</i>	‘sardine’
NCal:	Nêlêmwa	<i>heva</i>	‘sardine’

POc **s(a,i)waRa* ‘Clupeidae, sardine or herring’

Adm:	Loniu	<i>caway</i>	‘k.o. sardine or anchovy’
PT:	Dobu	<i>siwala</i>	‘gold-spot herring’
PT:	Molima	<i>siwala</i>	‘sardine, fish which comes in <i>bolimana</i> (SW wind = May–June) time’
PT:	Kilivila	<i>lawiya</i>	‘k.o. fish’ (vowel metathesis)

PEOc **buma* ‘k.o. fish, possibly sardine’

MM:	Maringe	<i>buma</i>	‘edible fish, frequently travels in schools’ (probably borrowed from Bugotu)
SES:	Bugotu	<i>buma</i>	‘sardine’
SES:	Gela	<i>buma</i>	‘k.o. fish’
SES:	Lau	<i>buma</i>	‘sardine’
SES:	Arosi	<i>buma</i>	‘sardine, many taboos connected with it’
SES:	’Are’are	<i>puma</i>	‘k.o. fish’
Pn:	Luangiaua	<i>puma</i>	‘k.o. fish’ (probably loan from a Solomons language)

cf. also:⁷

NCV:	Neve’ei	<i>na-buŋ</i>	‘fish intermediate between sardine and mackerel’
NCV:	Nāti	<i>ni-^mpuŋ</i>	‘mackerel’
NCV:	Nahavaq	<i>ne-buŋ</i>	‘mackerel’
NCV:	Nese	<i>na-buŋo</i>	‘mackerel’
NCV:	South Efate	<i>na-pum^w</i>	‘Scombridae’
SV:	Anejoñ	<i>(na-tic)pom</i>	‘Scombridae’
NCal:	Nyelāyu	<i>bume</i>	‘k.o. mackerel’
Fij:	Bā	<i>bima</i>	‘k.o. middle-sized mullet’

8 Milkfishes (Chanidae)

This family consists of a single species, *Chanos chanos*. Fishes grow to around a metre in length, are finely scaled, silvery and toothless. They inhabit both open sea and brackish water

⁷ The items listed here other than from Bā are due to John Lynch (pers. comm.)

and can ascend into rivers. They feed on crustaceans, worms and detritus. Although very bony, the flesh has soft texture and excellent flavour (Munro p.54).

There is a well-supported POc reconstruction continuing PMP **qawa* or **qawan*. New Caledonian reflexes provide support for final **-q*. At least two SES cognates show confusion with terms for mullet (cf. POc **(k,q)aru(a)s*, §18).

PMP **qawa*, **qawan* ‘*Chanos chanos*, milkfish’ (Blust 2002)

POc **qawaq* ‘*Chanos chanos*, milkfish’

NNG:	Gedaged	<i>au</i>	‘white marine fish about 50 cm long’
NNG:	Mutu	<i>au</i>	‘ <i>Chanos chanos</i> ’
SES:	Gela	<i>oā</i>	‘name given to bonefish and milkfish’
SES:	Lau	<i>hak^wa</i>	‘ <i>Chanos</i> sp.’
SES:	’Are’are	<i>rawa</i>	‘k.o. fish’
SES:	Sa’a	<i>sawa</i>	‘freshwater mullet’
SES:	Arosi	<i>sawa</i>	‘mullet’
NCal:	Nyelâyü	<i>kuak</i>	‘adult milkfish’
NCal:	Nêlêmwa	<i>kua</i>	‘adult milkfish’
NCal:	Nemi	<i>nu-hyaok</i>	‘juvenile milkfish’
Mic:	Kiribati	<i>(bane)awa</i>	‘ <i>Chanos chanos</i> ’
		<i>awa(tai)</i>	‘adult milkfish’

PCP **qawa* ‘*Chanos*’ (Geraghty)

Fij:	Bauan	<i>yawa</i>	‘milkfish, <i>Chanos chanos</i> ’
Fij:	Wayan	<i>awa</i>	‘k.o. fish, more than one metre long, bony, feeds in schools, good eating’

PPn **qawa* ‘*Chanos chanos*, milkfish or salmon herring’ (Hooper)

Pn:	Tongan	<i>ʔava</i>	‘k.o. fish’ (<i>ʔava tahi</i> ‘sea ʔava’, <i>ʔava ʔuta</i> ‘land ʔava’)
Pn:	Samoa	<i>ava</i>	‘large fish, <i>Chanos</i> sp., caught by torchlight’
Pn:	Tokelauan	<i>ava</i>	‘milkfish’
Pn:	Tuvalu	<i>ava</i>	‘milkfish’
Pn:	Tahitian	<i>ava</i>	‘milkfish’
Pn:	Hawaiian	<i>awa</i>	‘ <i>Chanos chanos</i> , milkfish’

cf. also:

SES:	Arosi	<i>ʔawa</i>	‘k.o. fish’
Mic:	Kiribati	<i>tāwa</i>	‘fry of milkfish’

9 Lizardfishes (Synodontidae)

Lizardfish are small, slender and cylindrical, with a rather wide mouth. Most are bottom-living inhabitants of muddy or sandy areas of shallow coastal waters. They are barred and mottled to blend in with bottom surroundings, and their general appearance suggests that of a lizard. The flesh is not very bony but insipid (Munro p.70).

The only reconstruction made for this family is PCP **dolo*, PPn **tolo* ‘*Saurida*, lizardfish’ (Geraghty p.146). These may reflect POc **(t,d)oloq* ‘eel’ (§11.3), with semantic shift.

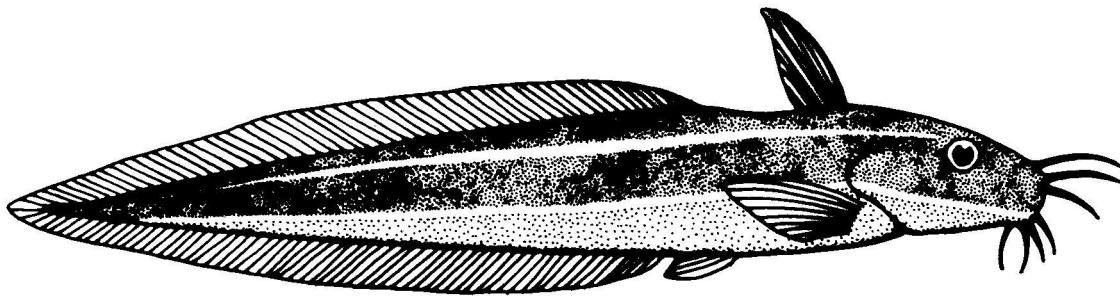


Figure 2.4 *Plotosus lineatus*, striped eel catfish

10 Catfish (Plotosidae)

Catfish are recognizable by thick slimy naked skin and long head feelers which resemble a cat's whiskers. They are edible, with excellent flesh despite their appearance. Munro (p.74) describes most New Guinea species as estuarine, although some frequent fresh water, while Geraghty (pers. comm.) notes that in Fiji and probably Polynesia catfish are found only in salt water. They are carnivorous bottom feeders, swallowing anything in their way. *Plotosus anguillaris* is a synonym for *P. lineatus*.

Reflexes undergo a change of meaning in some Polynesian languages. Hooper (p.221) suggests that an elongate shape may provide the semantic link with snake mackerels, and, although the two are found in very different environments, both are black and slimy (Geraghty pers. comm.).

POc **kaboRa* 'Plotosus spp., catfish'

Adm:	Loniu	<i>kopow</i>	'catfish or catfish eel'
NNG:	Gedaged	<i>gaboŋ</i>	'k.o. fish, to 7 cm, usually in swarms' (g- for †k- or zero) ⁸
PT:	Misima	<i>kaboiya</i>	' <i>Plotosus lineatus</i> , striped catfish'
MM:	Patpatar	<i>uboro</i>	'catfish'
SES:	Gela	<i>(i)yabola</i>	'catfish spp.' (ya- reanalysed as <i>iya</i> 'fish')

PEOc **kaboRa* 'Plotosus, catfish' (Geraghty)

NCV:	Mota	<i>yap^wora</i>	'a fish, <i>Silurus</i> [<i>Plotosus</i> ']
NCV:	Lewo	<i>kapwo</i>	'catfish'
NCV:	Nguna	<i>(na-i)kapwoa</i>	'catfish' (ka- reanalysed as <i>ika</i> 'fish')
SV:	Anejoñ	<i>n-yope</i>	' <i>Plotosus anguillaris</i> ' [<i>P. lineatus</i>]
NCal:	Pije	<i>sago</i>	' <i>P. anguillaris</i> '
NCal:	Nyelâyu	<i>cago</i>	' <i>P. anguillaris</i> '
NCal:	Iaai	<i>(wa)aba</i>	' <i>P. anguillaris</i> '
Fij:	Bauan	<i>kaboa</i>	'small black shoal fish, catfish'
Fij:	Wayan	<i>kabō</i>	' <i>Plotosus</i> spp. Sharp spikes can inflict painful wound'

PPn **kapoa* 'fish sp., probably *Plotosus* sp., catfish' (Hooper)

Pn:	Tongan	<i>kopoa</i>	'catfish'
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⁸ Geraghty (pers. comm.) notes that juvenile catfish do move in very dense populous swarms.

Pn:	E Uvean	<i>kapoa</i>	' <i>P. lineatus</i> , catfish'
Pn:	Samoaan	<i>ʔapoa</i>	' <i>P. anguillaris</i> '
Pn:	Pukapukan	<i>kapoa</i>	' <i>Promethichthys prometheus</i> , snake mackerel'
Pn:	Tokelauan	<i>kapoa</i>	' <i>Promethichthys prometheus</i> , snake mackerel'

11 Eels

Eels are classified in a number of families within the Order Anguilliformes. The best known within the region are the freshwater eels (Anguillidae), and several sea eel families including morays (Muraenidae), pike eels (Muraenesocidae), congers (Congridae) and snake eels (Ophichthidae).

11.1 Freshwater eels (Anguillidae)

Although they spend most of their lives in fresh water, freshwater eels migrate to sea to spawn. In inland areas they constitute an important food item. POc **tuna* is well supported as the generic term for all freshwater eels.

PAn **tuNa* 'freshwater eel' (Blust 2002)

POc **tuna* 'Anguillidae, freshwater eel (generic)'

Adm:	Mussau	<i>tuna</i>	'eel'
Adm:	Lenkau	<i>trun</i>	'large freshwater eel'
Adm:	Penchal	<i>run</i>	'large freshwater eel'
NNG:	Bilibil	<i>tuna</i>	'eel'
NNG:	Wogeo	<i>tuna</i>	'eel'
NNG:	Kairiru	<i>tun</i>	'freshwater eel'
NNG:	Bariai	<i>tuna</i>	'large eel'
NNG:	Lukep (Pono)	<i>tunu</i>	'eel (generic)'
NNG:	Mutu	<i>tūn</i>	' <i>Anguilla reinhardti</i> , freshwater eel'
PT:	Tawala	<i>tuna</i>	'freshwater eel'
PT:	Lala	<i>kuna</i>	'eel'
MM:	Tolai	(<i>maleo</i>) <i>tuna</i>	'k.o. eel' (<i>maleo</i> 'generic for sea eels')
MM:	Tabar	<i>tuna</i>	'eel'
MM:	Nduke	<i>tuna(sa)</i>	'eel'
Mic:	Kosraean	<i>ton</i>	'freshwater eel'

PCP **tuna* 'Anguillidae, freshwater eel' (Geraghty)

Fij:	Rotuman	<i>funa</i>	(1) 'freshwater eel', (2) 'similar saltwater eel'
Fij:	Wayan	<i>tuna</i>	(1) 'freshwater eel', (2) 'generic for eels including morays and congers'
Fij:	Bauan	<i>duna</i>	'freshwater eel'
Fij:	Kadavu	<i>tuna</i>	'generic term for freshwater eels'

PPn **tuna* '*Anguilla* spp., freshwater eel' (Hooper)

Pn:	Tongan	<i>tuna</i>	'k.o. eel' (including <i>tuna tahi</i> , <i>tuna vai</i>)
Pn:	Niuean	<i>tuna</i>	'freshwater eel'

Pn:	E Uvean	<i>tuna</i>	‘freshwater eel’
Pn:	Rennellese	<i>tuna</i>	‘k.o. lake eel’
Pn:	Pukapukan	<i>tuna</i>	‘generic for several eels, both sea and fresh water’
Pn:	Samoaan	<i>tuna</i>	‘ <i>Anguilla</i> , freshwater eel’
Pn:	Tikopia	<i>tuna</i>	‘eel: generic term applied especially to lake eels’
Pn:	Māori	<i>tuna</i>	‘generic for all freshwater eels’
Pn:	Hawaiian	<i>kuna</i>	‘k.o. freshwater eel’

11.2 Morays (Muraenidae)

Morays are large, thick-skinned eels with sharp knife-like teeth but no pectoral fins. They can be pugnacious when confronted, although shy by nature. Many are nocturnal. They are often found in the crevices of coral banks. There are numerous species in New Guinea waters, many quite distinctive in colouring and markings.

POc **[la]b^wa(s,j)i* ‘moray eel’ is reconstructable both with and without initial **la-*.

POc **[la]b^wa(s,j)i* ‘moray eel’

Adm:	Titan	<i>pes</i>	‘moray eel’
Adm:	Lenkau	<i>pes</i>	‘moray eel’
Adm:	Nali	<i>p^wesi</i>	‘moray eel’
NNG:	Psohoh	<i>basi</i>	‘eel’
PT:	Sudest	<i>lab^wadi</i>	‘freshwater eel’
Mic:	Mokilese	<i>lap^wet</i>	‘k.o. eel’
Mic:	Ponapean	<i>lap^wet</i>	‘saltwater eel (generic)’
Mic:	Chuukese	<i>lop^wut</i>	‘general name for moray eels’
Mic:	Woleaian	<i>rab^wuto</i>	‘generic for snake, worm, eel’ (-o unexpected)
Fij:	Lau	<i>pusi</i>	‘ <i>Echidna nebulosa</i> , starry or clouded moray’

PPn **pusi* ‘sea eel generic, *Gymnothorax* spp.’ (Hooper)

Pn:	Rennellese	<i>pusi</i>	‘starry or clouded moray eel’
Pn:	Samoaan	<i>pusi</i>	‘generic for moray eels’
Pn:	Tokelauan	<i>puhi</i>	‘generic for moray eels’
Pn:	Tikopia	<i>pusi</i>	‘ <i>Gymnothorax</i> sp., grey-brown reef eel’
Pn:	Māori	<i>puhi</i>	‘very large variety of eel’
Pn:	Hawaiian	<i>puhi</i>	‘eel (generic)’

The reconstruction below is weakly supported and it is uncertain what kind of eel it referred to. It is listed in this section as its Titan reflex refers to a kind of moray.

POc **b^walup* ‘k.o. eel, moray eel?’

Adm:	Titan	<i>p^walu</i>	‘ <i>Echidna nebulosa</i> , starry or clouded moray’
NNG:	Mangga	<i>vayob</i>	‘eel’
NNG:	Mumeng (Kumaru)	<i>vyob</i>	‘eel’
NNG:	Adzera	<i>b^waruf</i>	‘freshwater eel’

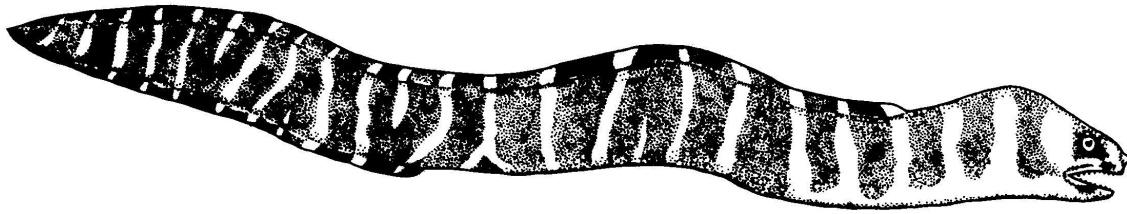


Figure 2.5 [*Gymnothorax* sp., barred moray eel]

The Micronesian evidence below points to a reconstruction with a single final vowel, while the PCP evidence reflects two.

PROc **dābea* ‘*Gymnothorax*, moray eel’

Mic:	Marshallese	ṛāp	‘ <i>Gymnothorax</i> , moray, large and black’
Mic:	Chuukese	ṛāp	‘moray eel’
Mic:	Ponapean	rap	‘saltwater eel, commonly found on barrier reef’

PCP **dābea* ‘k.o. sea eel or sea snake’ (Geraghty)

Fij:	Bauan	dābea	‘conger eel, large and dangerous sea eel’
Fij:	Kadavu	dabea	‘moray eel’

PPn **tāpea* ‘generic for morays’

Pn:	E Futunan	tapea	‘ <i>Gymnothorax</i> spp.’
Pn:	Rennellese (Bellona)	tāpea	‘generic for morays, reef eels’

Lower-level reconstructions include PCP **boila* ‘moray eel’ and **dravua* ‘*Gymnothorax* sp.’ (Geraghty p.145).

11.3 Pike eels (Muraenesocidae) and congers (Congridae)

Pike eels are large, with prominent canine teeth and a long slender snout. Conger eels are also large, with well-developed vertical and pectoral fins. The two are sometimes classified together. The flesh of both is excellent. Both occur in shallow water, although congers also have deep-water forms.

PROc **bonu* ‘k.o. eel, probably conger’

Mic:	Kiribati	(ra)p ^w ono	‘moray eel’ (ra- ‘defective’?)
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PCP **bon(u,o)* ‘conger eel’ (Geraghty: **bonu* ‘Ophichthidae, snake eel’)

Fij:	Bauan	bonu	‘ <i>Scolecenchelys macropterus</i> , slender snake eel’
Fij:	Rewa	bonu(ika)	‘Conger sp.’
Fij:	Wayan	bonu	‘an eel of the mangrove swamp, probably conger’
Pn:	Tongan	ponu(taliŋa)	‘k.o. eel, inedible’
		ponu-ponu	‘k.o. sea worm’
Pn:	K’marangi	pono	‘conger sp., white eel’

cf. also:

PT:	Ubir	bonu-bonu	‘fish (freshwater)’
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PROc **baku* ‘conger eel’

SV:	Sye	<i>poki</i>	‘k.o. eel, possibly conger’
SV:	Lenakel	<i>paku</i>	‘k.o. eel’
Fij:	Rotuman	<i>paʔu</i>	‘sea eel’
Fij:	Wayan	<i>bākū</i>	‘ <i>Conger cinerus</i> ’
Fij:	Nadroga	<i>baku</i>	‘ <i>Conger cinerus</i> ’

11.4 Snake eels (Ophichthidae)

Snake eels tend to lie on sandy or muddy bottoms in the vicinity of reefs, often spending day-light hours completely buried, although they can swim to the surface at night when attracted by lights. They are difficult to trap, seldom taking a hook, while their slender bodies pass through the mesh of nets and traps (Munro p.91). No reconstructions have been made.

11.5 Other terms for eels

In a number of reconstructions it has proved difficult to link terms to particular kinds of eel. The following may be a generic term for sea eels.

POc **malayo* ‘sea eel, possibly generic’

NNG:	Kove	<i>maleu</i>	‘freshwater eel’
NNG:	Mutu	<i>(az)mala</i>	‘ <i>Gymnothorax cribroris</i> , brown-flecked reef eel’
MM:	Lamasong	<i>male</i>	‘eel’
MM:	Madak	<i>mele</i>	‘eel’
MM:	Tolai	<i>maleo</i>	‘generic name for sea eel’
MM:	Minigir	<i>malo</i>	‘eel’
MM:	Ramoaina	<i>maleu</i>	‘eel’
MM:	Halia (Selau)	<i>melio</i>	‘eel’
MM:	Taiof	<i>mereou</i>	‘eel’
MM:	Nehan	<i>malio</i>	‘moray eel’
NCV:	Mota	<i>maleo</i>	‘sea eel’

Mota has two similar terms, *maleo* and *marea*, and it is possible that the former is a borrowing from a Western Oceanic language. The next set is in complementary distribution to the one above, and it may be that we are dealing with a single cognate set, although we would expect PROc *†*malaya* if directly inherited. It is possible that PROc **maraya* was borrowed from an unrecorded language’s reflex of POc **malayo*. Arosi (SES) *marea* ‘k.o. eel’ also appears to reflect **maraya*, but it is reasonably likely that this is a Mota borrowing introduced by missionaries, as Mota was a missionary lingua franca which was also used in parts of the Solomon Islands in the nineteenth century.

PROc **maraya* ‘sea eel’ (Clark 2009:141)⁹

NCV:	Mota	<i>marea</i>	‘sea eel’
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⁹ Clark also suggests POc **male(u,wa)* ‘freshwater eel’ (see previous set).

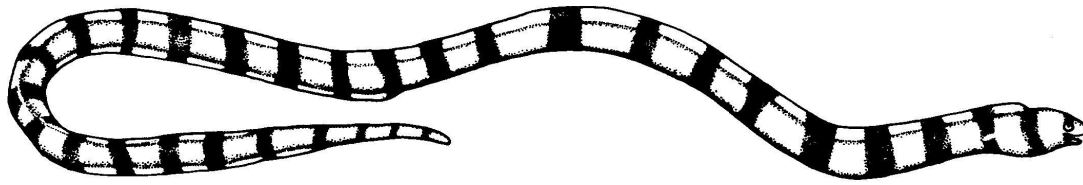


Figure 2.6 *Myrichthys colubrinus*, harlequin snake eel

NCV:	Tamambo	<i>marai</i>	'k.o. eel, not for eating'
NCV:	NE Ambae	<i>marae</i>	'eel'
NCV:	Raga	<i>marae</i>	'eel (generic)'
NCV:	S Efate	<i>mra (ni nai)</i>	'eel (generic)'
Mic:	Carolinian	<i>(li)m^ware-m^war</i>	'white or yellow eel with black banded stripes' (<i>li-</i> 'attributive prefix')
Mic:	Puluwatese	<i>(li)m^wara-m^war</i>	'k.o. eel' (<i>li-</i> prefix to names of birds, eels, fish, lizards etc.)

cf. also:

SES:	Arosi	<i>marea</i>	'k.o. eel' (borrowed from Mota <i>marea</i> ?)
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PMP **kasuli* 'Anguillidae, freshwater eel' (ACD: PWMP **kasuli*)

POc **(k,q)asuli* 'k.o. sea eel'

PCP **qasuli* 'k.o. sea eel' (Geraghty)

Fij:	Bauan	<i>suli</i>	'conger'
Pn:	Samoa	<i>asulu</i>	' <i>Strophidon</i> , moray eel' (Rensch 1999:20)

cf. also:

SES:	Bugotu	<i>kasa</i>	'sea eel'
Mic:	Kiribati	<i>kuru-kuru</i>	'moray eel'

POc **(t,d)oloq* 'k.o. eel'

MM:	Meramera	<i>tulu</i>	'k.o. eel'
MM:	Torau	<i>tolo(u)</i>	'k.o. eel'
MM:	Mono-Alu	<i>tolo?o</i>	'k.o. eel'
MM:	Vaghua	<i>toloko</i>	'k.o. eel'
MM:	Varisi	<i>toloko</i>	'k.o. eel'
MM:	Hoava	<i>toloko</i>	'k.o. eel'
SES:	Baegu	<i>dolo</i>	'k.o. eel'
SES:	Kwara'ae	<i>dōl</i>	'k.o. eel'
SES:	Kwai	<i>dolo</i>	'k.o. eel'
SES:	Langalanga	<i>dolo</i>	'k.o. eel'
SES:	Lau	<i>dolo</i>	'k.o. eel'

cf. also:

Pn:	Tikopia	<i>toro</i>	'lizardfish'
Pn:	Samoa	<i>tolo</i>	'small mud skipper'

The Polynesian terms may be linked through association with PPn **tolo* ‘to crawl’. Some eels (particularly snake eels), lizardfish (§9) and mud skippers (§49) may all be described as mud dwellers.

The SES terms below show coalescence of **wa* as *-o* as has been noted also in some shark terms.

PEOc **pulewa* ‘k.o. eel’

SES:	Gela	<i>puleo</i>	‘k.o. eel’
SES:	Birao	<i>puleo</i>	‘eel’
SES:	Lengo	<i>puleo</i>	‘freshwater eel’
SES:	Longgu	<i>puleo</i>	‘eel’

PCP **bulewa* ‘k.o. eel’

Pn:	Tuvalu	<i>puleva</i>	‘k.o. eel’
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cf. also:

PT:	Bunama	<i>p^wa-p^walewa</i>	‘k.o. lizardfish’
Fij:	Bauan	<i>bulewa</i>	‘zoophyte that adheres to reefs’

PPn **toke* ‘sea eel’ has also been reconstructed (Hooper p.198).

12 Flying fishes (Exocoetidae)

These fish are pelagic, swimming near the surface and gliding above the water for considerable distances. They inhabit open coastal and oceanic waters, are attracted to light at night and often leap aboard vessels. Their flesh is of good quality (Munro p.115). In Sa’a (Malaita), flying fish, like the bonito, require a certain supernatural power to be caught. Certain formalities must be followed and particular sacrifices made before a canoe can set out to catch flying fish (Codrington 1891:138).

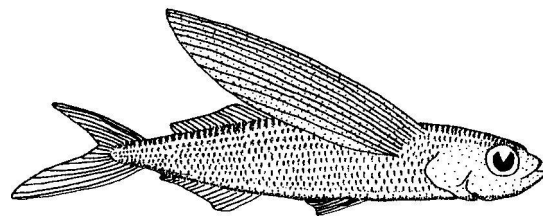


Figure 2.7 *Exocoetus volitans*, blue flying fish

Munro identifies more than a dozen species, but terms located have little elaboration of identity.

POc **m^wagaRut* ‘Exocoetidae, flying fish’

Adm:	Titan	<i>mokou</i>	‘generic for flying fish, Exocoetidae’
Adm:	Lenkau	<i>mokow</i>	‘flying fish’
Adm:	Lou	<i>mokou</i>	‘flying fish’
MM:	Halia	<i>magalut</i>	‘flying fish’
SES:	Arosi	<i>magaru</i>	‘flying fish’
NCV:	Mwotlap	<i>na-m^wkey</i>	‘Exocoetidae spp., flying fish’
NCV:	NE Ambae	<i>m^wakaru</i>	‘flying fish’
NCV:	Raga	<i>mayaru</i>	‘generic for various flying fish’

PMic **manar* ‘flying fish’ (**-ŋ-* for *†*-g-*)

Mic:	Carolinian	<i>maŋar</i>	‘flying fish’
Mic:	Woleaian	<i>meŋaz</i>	‘flying fish’
Mic:	Mokilese	<i>məŋɔr</i>	‘flying fish’

Lower-level reconstructions include PPn **mālolo* ‘flying fish spp.’ and PPn **sasawe* ‘Exocoetidae spp., flying fish’ (Hooper p.201). PPn **sipa* ‘small or immature flying fish’ is considered to be a reflex of POc **sipa* ‘Hemiramphidae’, proposed in §13.

13 Half beaks and garfishes (Hemiramphidae), needlefishes and long toms (Belonidae)

Adult halfbeaks and garfishes have an elongated shaft-like lower jaw and very short upper jaw, although in juveniles the mouth is symmetrical. Like needlefish they live near the surface and are semipelagic. They inhabit shallow water and estuaries. The flesh is delicate but full of fine bones. They are important food fishes (Munro p.109). *Hemiramphus* is the most common genus.

Needlefish and long toms are very slender, elongated with forceps-like jaws, well-toothed with minute scales. They are both marine and estuarine, and a few live permanently in fresh water. They often congregate in schools. Generally voracious, they are potentially dangerous because of their great speed and habit of making sudden leaps, especially when attracted to lights at night. The flesh is excellent (Munro p.105). Genera include *Belone*, *Platybelone*, *Strongylura* and *Tylosurus*.

The two families are here treated together because in a number of languages (Halia, Kiribati, Mokilese, Rennellese, Samoan, Tikopia) there is one term covering both, presumably reflecting similarities in shape and habitat.

POc **Rije* ‘*Hemiramphus*, halfbeak’ (Geraghty 1990)

MM:	Nakanai	<i>lise</i>	‘small fish which flies, has a sharp bill’
Fij:	Rotuman	<i>jija</i>	‘ <i>Hemiramphus</i> , garfish’ (<i>j-</i> for †∅)
Fij:	Bauan	<i>sise</i>	‘ <i>Hemiramphus</i> , garfish’ (<i>s-</i> for †∅)
Fij:	Lau	<i>sise</i>	‘ <i>Hemiramphus</i> , garfish’ (<i>s-</i> for †∅)

PPn **ise* ‘halfbeak spp.’ (Hooper)

Pn:	Tongan	<i>ihe</i>	‘ <i>Hemiramphus</i> ’
Pn:	Niuatoputapu	<i>ihe-ihe</i>	‘growth stage of halfbeak’
Pn:	Samoan	<i>ise</i>	‘ <i>Hemiramphus</i> and <i>Belone</i> taxa’
Pn:	Tokelauan	<i>ihe</i>	‘halfbeak spp.’
Pn:	Tikopia	<i>ise</i>	‘garfish Belonidae or (??) small crocodile needlefish’
Pn:	Māori	<i>ihe</i>	‘ <i>H. intermedius</i> ’ (?)
Pn:	Hawaiian	<i>ihe-ihe</i>	‘any of several halfbeaks’ (<i>ihe</i> ‘spear, javelin, dart’)

The change in gloss in PPn below can be explained because of close resemblance between garfishes and some flying fish, with the latter, such as the beaked flying fish, *Oxyporhamphus micropterus micropterus*, classified as Exocoetidae by Munro (p.118) and more recently as Hemiramphidae (Kailola 1987:153, FISHBASE). Half beaks, garfish and flying fish all belong to the same suborder.

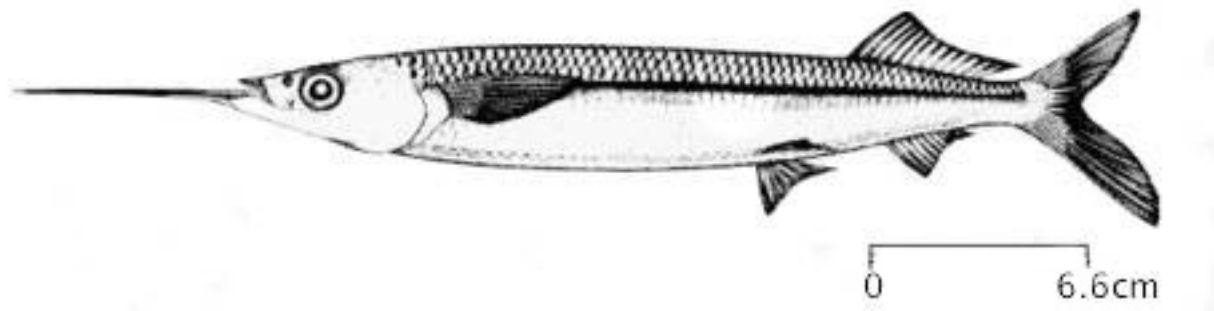


Figure 2.8 *Hemiramphus lutkei*, Lutke's halfbeak

POc **sipa* 'Hemiramphus spp.'

PT:	Kilivila	<i>seva(leya)</i>	'garfish'
MM:	Tolai	<i>ive</i>	'k.o. fish'

PPn **sipa* young flying fish' (Hooper)

Pn:	Niuean	<i>hipa</i>	'young small flying fish'
Pn:	Samoaan	<i>sipa</i>	'young flying fish'
Pn:	Tokelauan	<i>hipa</i>	'young flying fish'
Pn:	Tikopia	<i>sipa</i>	'young flying fish'

POc **m^wakoR* 'Hemiramphus, garfish'

Adm:	Titan	<i>makoi</i>	'Hemiramphus sp., garfish'
NNG:	Kela	<i>(i-)mak^wa?</i>	'k.o. long tom' (shift of labialisation)
PT:	Hula	<i>muyu</i>	'sea garfish'
PT:	Motu	<i>moa</i>	'Hemirhamphus quoyi, small white garfish' [now <i>Hyporhamphus quoyi</i>] (vowel metathesis)
PT:	Lala	<i>moa</i>	'small garfish' (vowel metathesis)
NCal:	Nixumwak	<i>m^wāk</i>	'k.o. fish'
NCal:	Xârâcùù	<i>m^wē</i>	'k.o. fish'
Mic:	Kiribati	<i>m^wake</i>	' <i>Strongylura</i> sp., garfish'
Mic:	Marshallese	<i>m^wak</i>	' <i>Strongylura</i> , needlefish'
Mic:	Woleaian	<i>m^waxi</i>	'young needlefish'

PCP **η^wa(k,x)a* 'Hemiramphus' (Geraghty)

Fij:	Kadavu	<i>ηaxa</i>	'Hemiramphus'
Pn:	E Uvean	<i>ηa?a</i>	' <i>Rastrelliger</i> (Scombridae)'

cf. also:

Mic:	Mokilese	<i>m^walak</i>	'k.o. needlefish (flat-sided garfish?)'
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The following reconstruction is echoed in the transparent compound, PMP/POc **saku-layaR* 'sailfish, swordfish', which contains as its second element **layaR* 'sail' (§58 and vol.1, pp.194–195).

PMP **saku* ‘needlefish’ (Blust 2002)

POc **saku* ‘needlefishes, garfishes, long toms (Belonidae)’

NNG:	Manam	<i>saʔu</i>	‘garfish’
NNG:	Lukep (Pono)	<i>sau</i>	‘needlenose fish’
PT:	Dobu	<i>sa-sau(li)</i>	‘long tom when small’
MM:	Vitu	<i>saku</i>	‘needlefish’
MM:	Patpatar	<i>sok</i>	‘long tom’
MM:	Nehan	<i>hau</i>	‘long tom (generic)’
NCV:	Namakir	<i>soka(raru)</i>	‘garfish’
NCal:	Iaai	<i>(wa)sao</i>	‘ <i>Hemiramphus far</i> ’
Mic:	Kiribati	<i>raku</i>	‘swordfish’
		<i>rau(bara)</i>	‘garfish’ (<i>bara</i> ‘small fry’)
Mic:	Marshallese	<i>tak</i>	‘ <i>Belone platyura</i> ’ [<i>Platybelone argalus platyura</i>]
Mic:	Ponapean	<i>tāk</i>	‘needlefish’
Mic:	Mokilese	<i>tōk</i>	‘needlefish, barred long tom?’
Mic:	Puluwatese	<i>tāk</i>	‘needlefish’
Mic:	Woleaian	<i>taxu</i>	‘needlefish (generic)’
Fij:	Kadavu	<i>saxu</i>	‘generic term for needlefishes’
Fij:	Bauan	<i>saku</i>	‘swordfish’
Fij:	Wayan	<i>saku</i>	‘generic for needlefish and longtoms’

PPn **haku* ‘garfish and needlefish’ (Hooper)

Pn:	Niuean	<i>aku</i>	‘long tom, pipe fish, edible’
Pn:	Tongan	<i>haku</i>	‘k.o. fish: a young <i>hakulā</i> ‘swordfish’
Pn:	Rennellese	<i>aku</i>	‘general term for needlefish and garfish’
Pn:	Pukapukan	<i>aku</i>	‘general name for needlefishes’
		<i>aku-aku</i>	‘ <i>Platybelone</i> sp.’
Pn:	Samoaan	<i>aʔu</i>	‘ <i>Strongylura</i> , fish said to attack humans’
Pn:	Tokelauan	<i>aku</i>	‘needlefish, about 60 cm long’
Pn:	Tikopia	<i>aku</i>	‘general term for needlefish and garfish’
Pn:	Tahitian	<i>aʔu-aʔu</i>	‘ <i>Platybelone</i> sp.’
Pn:	Marquesan	<i>aku</i>	‘general term for needlefish and garfish’

POc **panapa* ‘garfish and needlefish taxon’ (ACD: ‘needlefish sp.’)

Adm:	Loniu	<i>panah</i>	‘ <i>Hemiramphus commersoni</i> , barred garfish’ [<i>H. far</i>]
Adm:	Lou	<i>panap</i>	‘small blue fish with long needle-like mouth’
Adm:	Likum	<i>panah</i>	‘small blue and green marine fish with projecting lower jaw’
Adm:	Nyindrou	<i>banap</i>	‘small dotted fish with needle nose’
MM:	Nehan	<i>pon(pou)</i>	‘large barred garfish’ (smaller is <i>kohkoh</i>)
MM:	Halia	<i>pon-pon</i>	‘halfbeak’
MM:	Teop	<i>pon-pon</i>	‘long-billed garfish, Quoy’s short-billed garfish, barred garfish’
Mic:	Kiribati	<i>anā</i>	‘a fish, small slender species, needlefish, garfish, halfbeak’ (loss of initial <i>p</i> - unexpected)
Mic:	Chuukese	<i>fanā</i>	‘small needlefish’

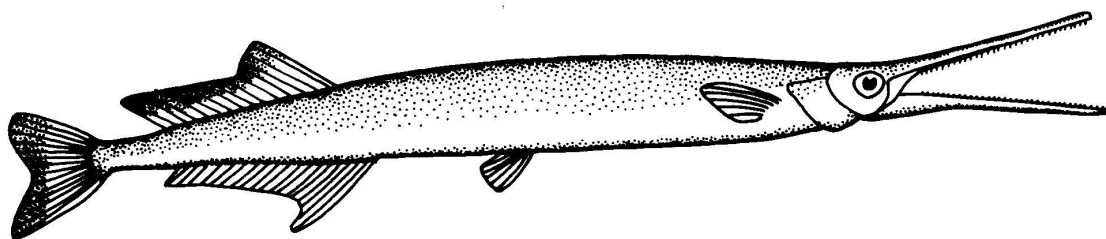


Figure 2.9 *Tylosurus crocodilus crocodilus*, giant long tom

Mic: Mokilese *pana* ‘k.o. needlefish’

Mic: Woleaian *ferā* ‘k.o. needlefish’

cf. also:

Adm: Titan *cinap* ‘barred garfish’

Reduplicated reflexes of POc **sao* in PPn below, refer instead to *Sphyraena*, the barracuda, and possibly its juvenile form. There is evidently some crossover of meaning between PPn **sao-sao* ‘*Sphyraena* sp.’ and PPn **tao-tao* ‘*Fistularia* spp., probably including trumpetfish’ (see §15). This may be because both barracuda and trumpetfish are, like the needlefish and garfish, long narrow fish, spear-like in shape.

POc **sao* ‘k.o. long tom’

Adm: Titan *co* ‘generic for needlefish, long toms’

Adm: Nali *so* ‘needlefish, ae’

Adm: Loniū *co* ‘k.o. long tom’

NNG: Gedaged *sao* ‘*Strongylura incisa*, long tom’

NNG: Lukep (Pono) *sau* ‘needlenose fish’

NNG: Takia *sao* ‘k.o. long tom’ (Mueller)

NNG: Tami *(i)-sa* ‘k.o. long tom’ (Mueller)

MM: Halia *soa-soa* ‘garfish, needlefish’ (vowel metathesis)

MM: Marovo *cho-cho* ‘*Hemiramphus* spp., small garfish (generic)’

PPn **sao-sao* ‘juvenile *Sphyraena* sp.’ (Hooper: ‘*Sphyraena* sp.’)

Pn: Niuean *hao-hao* ‘trumpetfish’

Pn: E Uvean *sao-sao* ‘juvenile *Sphyraena* sp.’ (*s* for †*h*-)

Pn: Samoan *sao-sao* ‘k.o. fish, said to be predatory and dangerous’

Pn: Tokelauan *hao-hao* ‘*S. forsteri*’

Pn: Tikopia *sao-sao* ‘juvenile *Sphyraena* sp.’

14 Squirrelfishes, soldierfishes (Holocentridae)

This family is well-represented through the region by most of the approximately 70 species known worldwide. Most are brilliant red, armoured with large rough scales with jagged edges. The head is extremely rough and spiny. They have large eyes, and are often longitudinally banded. Many species are nocturnal, living in holes in the reef during the day (Munro p.138). Although most of the species are small, the flesh is considered good eating. In Niuaotupapu they are caught on moonlit nights either from a boat anchored near the reef or while standing on the reef edge (Dye 1983:250). Genera include *Sargocentron* [*Holocentrus*], *Myripristis* and *Flammeo*. *Adioryx* is now classified as a junior synonym of *Sargocentron*.

A number of taxa are typically distinguished in Oceanic languages. Three POc terms are reconstructable. Nuclear Micronesian reflexes in the following reconstruction confirm that this form was trisyllabic, as an original disyllable would be reflected without final vowel (ACD).

PMP **taRaqa*n ‘*Holocentrus* spp., squirrelfish’ (ACD)

POc **taRaqa*n ‘*Sargocentron* spp., squirrelfish, including *S. spiniferum*’ (Geraghty 1990:

PEOc **taRaʔa*)

Adm:	Loniu	<i>taʔay</i>	‘squirrelfish or silver biddy’ (metathesis: for † <i>taya</i> (ʔ))
NNG:	Yabem	<i>talaŋ</i>	‘a red sea fish’
PT:	Gumawana	<i>tayawana</i>	‘squirrel fish’
PT:	Misima	<i>talayan</i>	‘ <i>Sargocentron</i> spp., spiny and blue-striped squirrelfish’
PT:	Motu	<i>tara</i>	‘ <i>S. violaceum</i> , violet squirrelfish’
MM:	Nakanai	<i>talaha</i>	‘k.o. fish’
MM:	Lihir	<i>taran</i>	‘ <i>S. spiniferum</i> , spinecheek squirrelfish’
MM:	Roviana	<i>ta-tara</i>	‘small reddish fish, easily hooked’
SES:	Gela	<i>talā</i>	‘ <i>S. spiniferum</i> , spinecheek squirrelfish’
NCV:	S Efate	<i>tra(kap)</i>	‘squirrelfish’
NCal:	Pije	<i>jalā</i>	‘ <i>Holocentrus spinifer</i> ’ [<i>S. spiniferum</i>]
NCal:	Jawe	<i>jarak</i>	‘ <i>Holocentrus spinifer</i> ’ [<i>S. spiniferum</i>]

PMic **tarā* ‘squirrelfish’ (Bender et al. 2003)

Mic:	Kiribati	<i>tā</i>	‘ <i>Sargocentron</i> spp.’
Mic:	Marshallese	<i>ceṛa</i>	‘ <i>Sargocentron</i> , <i>Myripristis</i> spp., squirrelfish’
Mic:	Ponapean	<i>sara</i>	‘ <i>S. spiniferum</i> , spinecheek squirrelfish’
Mic:	Chuukese	<i>sarā</i>	‘ <i>Sargocentron</i> sp., yellow-lined squirrel fish’
Mic:	Woleaian	<i>sezā</i>	‘ <i>Adioryx spinifer</i> , spiny squirrel fish’ [<i>S. spiniferum</i>]
Mic:	Puluwatese	<i>haṛa</i>	‘k.o. red fish’

PPn **taqa* ‘*Sargocentron spiniferum*, armoured soldierfish’ (Hooper)

Pn:	Tongan	<i>taʔa</i>	‘ <i>S. spiniferum</i> , red, edible’
Pn:	Niuean	<i>tā</i>	‘ <i>Myripristis violacea</i> , lattice soldierfish’
Pn:	Pukapukan	<i>tā</i>	‘ <i>S. spiniferum</i> ’
Pn:	Samoa	<i>tā(malau)</i>	‘name given to certain fishes of genus <i>Sargocentron</i> when about 30 cm in length’. (See also under * <i>malau</i> below, p.55.)

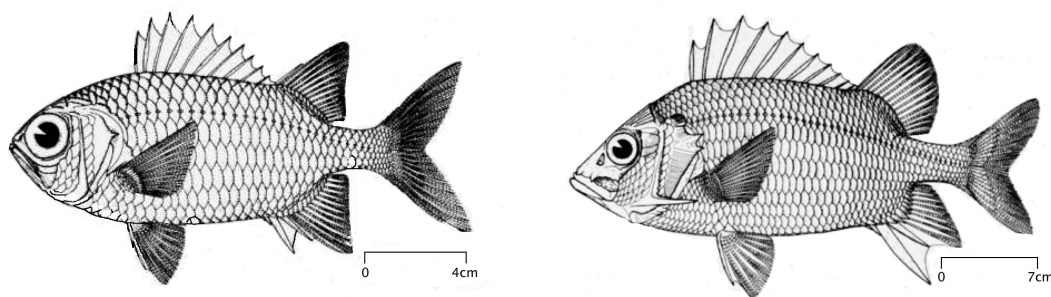


Figure 2.10 Left *Myripristis murdjan*, crimson squirrelfish. Right *Sargocentron spiniferum*, armoured soldierfish.

Pn:	K'marangi	<i>tā</i>	' <i>S. ruber</i> , red squirrelfish' [<i>S. rubrum</i>]
Pn:	Tokelauan	<i>tā</i>	' <i>S. spiniferum</i> '
Pn:	Tuvalu	<i>tā (malau)</i>	' <i>Adioryx</i> spp.' [<i>Sargocentron</i>]
Pn:	Tikopia	<i>ta</i>	'sea fish, app. related to large squirrelfish'
cf. also:			
Pn:	Rennellese	<i>tagae</i>	'general name for some squirrelfish' (borrowed from a non-Polynesian language)
POc * <i>kuru[ru]</i> 'Myripristis spp., squirrelfish'			
Adm:	Penchal	<i>kululu</i>	'squirrelfish, Holocentridae'
Adm:	Lou	<i>kurur</i>	'squirrelfish, Holocentridae'
NNG:	Gedaged	<i>uļu</i>	' <i>Myripristis murdjan</i> , crimson squirrelfish' (Mueller)
NNG:	Manam	<i>ididi</i>	'squirrelfish'
NNG:	Takia	<i>uru</i>	'k.o. squirrelfish'
PT:	Gumawana	<i>gilulu</i>	'squirrelfish' (g- for † <i>k</i> - or † <i>θ</i> -)
PT:	Iduna	<i>kululu (bawe)</i>	'k.o. fish' (<i>bawe</i> 'pig')
PT:	Kilivila	<i>kuyu</i>	'k.o. fish'
PT:	Motu	<i>kururu</i>	'squirrelfish' (<i>kururu ioio</i> , <i>kururu matabada</i>)
MM:	Vitu	<i>kururu</i>	'squirrelfish'
MM:	Patpatar	<i>kurur</i>	'red-orange squirrelfish'
MM:	Tolai	<i>kurur</i>	'k.o. fish'
MM:	Lihir	<i>kurur</i>	'Holocentridae, esp. <i>Myripris</i> '
SES:	Lau	<i>alulu</i>	'squirrelfish' (a- for † <i>ʔu</i> -; -l- for † <i>r</i> -: borrowed form?)
NCV:	Lo-Toga	<i>wur-wur</i>	' <i>Myripristis berndti</i> '
Mic:	Kiribati	<i>kū</i>	' <i>Sargocentron</i> spp., soldierfish'
Mic:	Mokilese	<i>kīr</i>	'k.o. soldierfish'
Mic:	Marshallese	<i>kur</i>	' <i>Sargocentron binotatus</i> '
PCP * <i>kuru</i> 'Myripristis' (Geraghty)			
Fij:	Rotuman	<i>ʔuru</i>	'red blunt-nosed fish'
Fij:	Bauan	<i>kuru</i>	'fish with a long snout'

PPn **kuru* ‘*Myripristis* sp.’ (Hooper)

Pn:	Niuean	<i>kū</i>	‘small red fish’
Pn:	Pukapukan	(<i>malau</i>) <i>kulu</i>	‘ <i>Myripristis adusta</i> ’
Pn:	Rapa	<i>kū</i>	‘ <i>Myripristis</i> sp.’ (loss of <i>*-r-</i> irregular)
Pn:	Tahitian	<i>ʔū-ʔū</i>	‘red-coloured fish’ (archaic) (loss of <i>*-r-</i> irregular)
Pn:	Hawaiian	<i>ʔū-ʔū</i>	‘ <i>Myripristis</i> sp.’ (loss of <i>*-r-</i> irregular)

POc **jori* ‘squirrelfish, possibly generic’

PT:	Dobu	<i>doli</i>	‘squirrelfish’
MM:	Nduke	<i>hori</i>	‘general name for red squirrelfish’
SES:	Gela	<i>sori</i>	‘ <i>Myripristis</i> spp., soldierfish (generic)’
SES:	Arosi	<i>dori(awa)</i>	‘k.o. fish’

cf. also:

MM:	Teop	<i>hori</i>	‘squirrelfish (generic)’
MM:	Maringe	<i>sori</i>	‘squirrelfish (generic)’
MM:	Marovo	<i>hori</i>	‘ <i>Sargocentron spiniferum</i> , spiny squirrelfish, bright red’

PROc **m^walau* ‘squirrelfish, possibly generic for a number of spp.’

Mic:	Marshallese	<i>m^wən</i>	‘ <i>Myripristis</i> sp., squirrelfish’
Mic:	Woleaian	<i>m^wēri</i>	‘red snapper, general term’
Mic:	Carolinian	<i>m^wēn</i>	‘k.o. squirrelfish’
Mic:	Satawalese	<i>m^wən</i>	‘ <i>Myripristis</i> spp., squirrelfish’

PPn **malau* ‘general term for a number of fishes of the genera *Holocentrus*, *Adioryx*, *Myripristis* and *Flammeo*, soldier fishes and squirrelfishes’ (Hooper)

Pn:	Tongan	<i>malau</i>	‘k.o. fish’
Pn:	E Uvean	<i>malau</i>	‘ <i>Adioryx</i> spp.’
Pn:	Rennellese	<i>magau</i>	‘ <i>Holocentrus</i> sp.’ [<i>Sargocentron</i> sp.]
Pn:	Tikopia	<i>marau</i>	‘ <i>Holocentrus spinifer</i> ’ [<i>Sargocentron spiniferum</i>]
Pn:	Samoa	<i>malau</i>	‘name given to red squirrelfish, <i>Holocentrus</i> and <i>Myripristis</i> ’
Pn:	W Futunan	<i>marau</i>	‘ <i>Adioryx caudimaculatus</i> and others’ [<i>Sargocentron caudimaculatum</i>]
Pn:	Marquesan	<i>maʔau</i>	‘ <i>Myripristis</i> spp.’

Other reconstructions at PPn level include **malau taqa* or **taqa malau* ‘*Adioryx* sp.’ (*taʔa* from POc **taRaqa* above) and **tala-kisi* ‘soldier or squirrelfish spp.’ (Hooper pp.201–202).

15 Trumpetfishes (Aulostomidae), cornetfishes and flutemouths (Fistulariidae)

Trumpetfishes (Aulostomidae) have a long compressed body, long head and small mouth at the end of a long compressed snout. Colours change from green through orange to reddish-brown in harmony with surroundings. They are rather small, shallow-water fishes, frequently

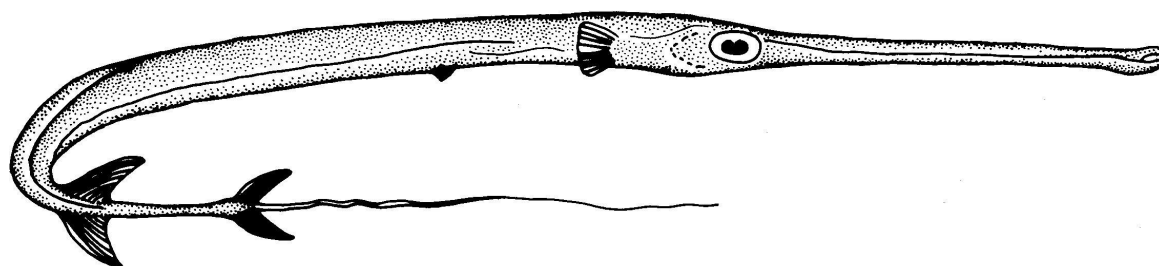


Figure 2.11 *Fistularia commersonii*, smooth flutemouth

observed resting motionless on the bottom (Munro p.149). The family is widely distributed (Fowler 1928:6).

Cornetfishes somewhat resemble long toms, but are readily distinguished by long flute-like snouts and whiplash-like filamentous prolongation of middle caudal (tail) fin rays (Munro p.149).

A lower-level reconstruction is PCP **bābā* ‘*Fistularia*, flutemouth’ (Geraghty p.148). Hooper (p.200) offers PPn **tao-tao* ‘*Fistularia* sp., flutefish’, which no doubt reflects the fish’s spearlike form (PPn **tao* ‘spear’).

16 Pipefishes, sea horses (Syngnathidae)

Most pipefishes (Syngnathidae) are long and thin, with a body covered in bony plates. Though poor swimmers and very sluggish, many are widely distributed by currents. Jointed bony armour of both species prevents active swimming. Fins are of little use and have degenerated (Munro p.151).

The seahorse probably did not hold much interest for early Oceanic speakers, being neither economically useful nor dangerous. Collected terms for it are rare, as evidenced by responses to a request from Bruce Biggs on the AN-LANG e-mail list in 1999.¹⁰ However, a common element is apparent from NNG, MM and SES terms, reinforced by a term from Yamdena (CMP), *bwa-watan* ‘seahorse’ (*bwaye* ‘crocodile’) which permits reliable reconstruction of the word for crocodile as the first element in an otherwise variable compound.

PMP **buqaya* + modifier ‘*Hippocampus* sp., seahorse’ (Blust 2002)

POc **puqaya* + modifier ‘seahorse’

NNG:	Numbami	<i>yuwaya tina</i>	‘seahorse’ (lit. ‘crocodile mother’)
NNG:	Bariai	<i>puaea gerei-rei</i>	‘seahorse’ (<i>puaea</i> ‘crocodile’, <i>gereirei</i> ‘newly-hatched’)
MM:	Roviana	<i>vu-vua</i>	‘seahorse’ (<i>vua</i> ‘crocodile’)
SES:	Lau	<i>fuasa niʔafu</i>	‘seahorse’ (lit. ‘crocodile of green seaweed’)
SES:	Arosi	<i>bote huasa</i>	‘seahorse’ (lit. ‘crocodile louse’)

cf. also:

SES:	Gela	<i>hinapi ni vua</i>	‘various pipefish spp.’ (lit. ‘crocodile limestick’)
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¹⁰ Biggs’ request appeared in the AN-LANG list on 7 May 1999.

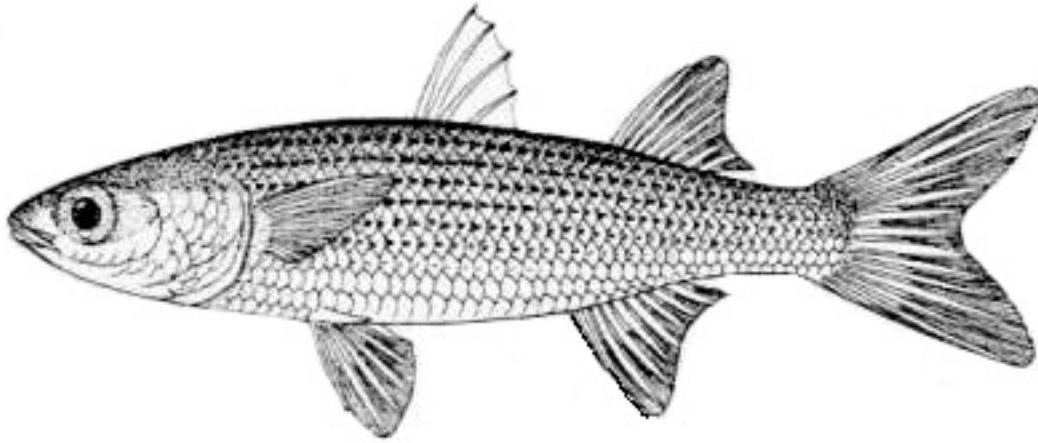


Figure 2.12 *Mugil cephalus*, flathead grey mullet

Kove (NNG) uses the same comparison, albeit with a non-cognate term for ‘crocodile’, *bayele ele ato* ‘seahorse, pipefish’ (*bayele* ‘crocodile’, *ele* ‘its’, *ato* ‘messenger’) (Ann Chowning, pers. comm.¹¹). In Dobu (PT) the term for crocodile is *warigoa*, and that for seahorse or pipefish *wari-warigoa*, reduplication of the first two syllables being a common way of indicating an inferior or diminutive form of the named item (Ross 2005:199).

17 Razorfishes (Centriscidae)

Razorfish are small, extraordinarily modified fishes which are extremely flattened and practically transparent. They swim in small schools, each in a vertical position with head downward among branching corals or sea urchins (Munro p.148). The name in Gela for *Aeoliscus striatus*, razorfish is *iya tuyuru*, literally ‘standing fish’. They also ‘sleep’ under the sand and will disappear under the sand when threatened by predators (Allen & Swainston 1993:82). No reconstructions have been made.

18 Mullet (Mugilidae)

Some mullet species are extremely abundant, occurring in large schools in coastal waters and estuaries. At least one species resides permanently in fresh water. The fish usually swim near the surface and congregate among grass-like plants on tidal flats. They are readily taken in hauling seines, although many possess great leaping powers and escape. The flesh is tasty and rich, with few bones (Munro p.164).

Although there are two soundly based reconstructions going back to PMP level, and one or two other more questionable POc reconstructions, I have very few cognates from Western Oceanic. POc **kanase* is widely supported, and evidently refers to the best-known species,

¹¹ The word *ato* is not glossed by Chowning, but means ‘message, messenger’ in closely related Bariai.

Valamugil cunnesius, (formerly *Liza cephalus* or *Mugil cephalus*). POc **kaRapa* is reconstructable, but as a term for *L. vaigiensis* is reliable only for Eastern Oceanic. Reflexes of POc *(*k,q*)*aRua(s)* refer to a range of mullet species, with size/growth stage possibly relevant.

Named growth stages of *Valamugil cunnesius* are listed from Dobu (PT) and three Polynesian languages. They run from smallest to largest.

Dobu:	<i>gwala, tonamua, iyakayo.</i>
Niuatoputapu:	<i>teʔefō, ʔaua, ʔauapuna, ʔaualele, kanahe.</i>
Tongan:	<i>teʔevela, teʔekona, teʔefō, ʔunomoa, kanahe, kanahe fau.</i>
Hawaiian:	<i>pua [child] ʔama, puaʔamaʔama, pua po ʔolā, ʔoʔolā kahaha, ʔamaʔama, ʔanae</i>

PMP **kanasay* ‘mullet’ (ACD)

POc **kanase* ‘mullet spp. including *Valamugil cunnesius*’

Adm: Loni	<i>kanas</i>	‘sea mullet’
Adm: Lou	<i>kanas</i>	‘k.o. fish’
Adm: Drehet	<i>kanah</i>	‘k.o. fish, about 35 cm, silvery, black-edged’
MM: Patpatar	<i>anas</i>	‘k.o. fish, small and white, salt and fresh water’
MM: Teop	<i>anahi</i>	‘mullet generic’
SES: Sa’a	<i>ʔanate</i>	‘mullet’
SES: Arosi	<i>ʔanate</i>	‘mullet’
SES: Bauro	<i>yanate</i>	‘ <i>Liza cephalus</i> ’ [<i>Valamugil cunnesius</i>]
SES: Kahua	<i>yanate</i>	‘ <i>L. cephalus</i> ’
TM: Buma	<i>onole</i>	‘bluespot mullet, <i>Valamugil seheli</i> ’
TM: Vano	<i>anala</i>	‘bluespot mullet, <i>Valamugil seheli</i> ’

PNCV **kanase* ‘mullet’ (Clark 2009:107)

NCV: Mota	<i>yanase</i>	‘mullet’
NCV: Mwotlap	<i>na-ynah</i>	‘ <i>L. macrolepis</i> ’ [<i>Chelon macrolepis</i>]
NCV: NE Ambae	<i>ganahe</i>	‘mullet’
NCV: Paamese	<i>anase</i>	‘mullet’
NCV: Namakir	<i>kanah</i>	‘mullet’
SV: Sye	<i>(w)ane</i>	‘mullet’
SV: Ura	<i>(w)ana</i>	‘mullet’
NCal: Nêlêmwa	<i>hâlât</i>	‘adult mullet’
NCal: Iaa	<i>enei</i>	‘adult mullet’

PCP **kanaðe* ‘*Liza* spp.’ (Geraghty)

Fij: Rotuman	<i>ʔanasi</i>	‘jumping mullet’
Fij: Bauan	<i>kanaðe</i>	‘Mugilidae’
Fij: Wayan	<i>kanaðe</i>	‘certain grey and blue-tailed mullet species including <i>Valamugil</i> sp.’

PPn **kanahe* ‘*Liza cephalus*, *Crenimugil crenilabis* and other mullet spp.’ (Hooper)

Pn: Tongan	<i>kanahe</i>	‘mullet’
Pn: Niuean	<i>kanahe</i>	‘several species of mullet. Usually refers to full-grown fish (cf. <i>fua-fua</i>)’
Pn: E Uvean	<i>kanahe</i>	‘ <i>Liza macrolepis</i> ’ [<i>Chelon macrolepis</i>]

Pn:	E Futunan	<i>kanae</i>	‘ <i>Crenimugil crenilabis</i> ’
Pn:	Pukapukan	<i>kanae</i>	‘ <i>C. crenilabis</i> ’
Pn:	Samoa	<i>ʔanae</i>	‘ <i>L. cephalus</i> , grey mullet’ [<i>Valamugil cunnesius</i>]
Pn:	Tokelauan	<i>kanae</i>	‘ <i>L. cephalus</i> ’
Pn:	Tikopia	<i>kanae</i>	‘ <i>L. cephalus</i> ’
Pn:	Māori	<i>kanae</i>	‘ <i>L. cephalus</i> ’
Pn:	Hawaiian	<i>ʔanae</i>	‘full-sized mullet’

PMP **qaRuas* ‘young growth stage of mullet, *Neomyxus chaptalii*’ (ACD)

POc *(*k,q*)*aRua(s)* ‘mullet (generic)’

Adm:	Seimat	<i>aw</i>	‘k.o. mullet, about one metre in length’
Adm:	Titan	(<i>nian</i>) <i>kau</i>	‘mullet (generic), Mugilidae’
Adm:	Ponam	<i>au</i>	‘mullet’
PT:	Kilivila	<i>kauya</i>	‘k.o. fish’
MM:	Bulu	<i>karua</i>	‘mullet’
MM:	Tolai	<i>karua</i>	‘k.o. fish, like pilchard’
SES:	Gela	<i>yalue</i>	‘ <i>Crenimugil crenilabis</i> , warty-lipped mullet’
SES:	To’aba’ita	<i>kalua</i>	‘ <i>Mugil cephalus</i> ’ [<i>Valamugil cunnesius</i>]
SES:	Lau	<i>kalua</i>	‘ <i>Mugil</i> spp’
Mic:	Kiribati	<i>aua</i>	‘mullet (generic)’
Mic:	Woleaian	<i>yaiuwa</i>	‘ <i>Neomyxus chaptalii</i> , silvery mullet’
Mic:	Satawalese	<i>yayuw</i>	‘mullet, <i>Liza</i> spp. (generic)’

PCP **qaua* ‘juvenile mullet’ (Geraghty)

Fij:	Rotuman	<i>aua</i>	‘very young mullet’ (Polynesian loan?)
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PPn **qaua* ‘mullet sp.’ (Hooper)

Pn:	Tongan	<i>ʔaua</i>	‘mullet sp.’
Pn:	Niuaatoputapu	<i>ʔaua</i>	‘second of five growth stages of <i>kanahe</i> ’
Pn:	E Uvean	<i>ʔaua</i>	‘growth term of <i>kanahe</i> ’
Pn:	Samoa	<i>āua</i>	‘grey mullet, <i>ʔanae</i> when about 5–7 cm in length’
Pn:	Tokelauan	<i>aua</i>	‘ <i>Neomyxus chaptalii</i> , silvery mullet’
Pn:	W Uvean	<i>aua</i>	‘small mullet’
Pn:	Māori	<i>aua</i>	‘ <i>Aldrichetta forsteri</i> , yellow-eye mullet’

cf. also:

MM:	Halia	<i>karua</i>	‘small mullet, silversides’ (for † <i>kalua</i>)
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Blust (2002:128) reconstructs both PMP **qaRuas* and PMP **qawas*, but the reflexes of the latter are almost all from languages in which **R* is lost, so it is reasonable to infer that they reflect PMP **qaRuas*, and that **qawas* is not reconstructable.

Although the following set of forms points to POc **kaRapa*, the reference is consistent only for Remote Oceanic cognates. There is a single putative Western Oceanic reflex which refers to the mandarin fish (*Synchiropus splendidus*), a distinctive, brilliantly coloured but little-known fish, not more than 10 cm in length, and very dissimilar to mullets.

POc **kaRapa* ‘k.o. fish’

PT:	Balawaia	<i>kalava</i>	‘mandarin fish’
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PROc **kaRapa* ‘*Liza vaigiensis*, diamond-scaled mullet’

SV:	Anejoñ	<i>kapa(n)</i>	‘adult freshwater mullet’
NCal:	Nêlêmwa	<i>k^holâp</i>	‘ <i>Mugil macrolepis</i> ’ [<i>Chelon macrolepis</i>]
Mic:	Carolinian	<i>araf</i>	‘mullet’
Mic:	Satawalese	<i>yaraf</i>	‘ <i>L. vaigiensis</i> ’
Mic:	Mokilese	<i>kap(ce)</i>	‘ <i>L. vaigiensis</i> , diamond-scaled mullet’

PCP **kava* ‘*Liza vaigiensis*’ (Geraghty)

PCP **kava-kava* ‘juvenile *Liza vaigiensis*’ (Geraghty)

Fij:	Bauan	<i>kava</i>	‘fish like the <i>kanaðe</i> ’
Fij:	Wayan	<i>kava</i>	‘ <i>L. vaigiensis</i> ’

PPn **kafa* ‘*Liza vaigiensis*’ (Hooper)

Pn:	Tongan	<i>kafa-kafa</i>	‘ <i>L. vaigiensis</i> ’
Pn:	E Uvean	<i>kafa-kafa</i>	‘ <i>L. vaigiensis</i> ’
Pn:	Samoa	<i>ʔafa</i>	‘fish similar to grey mullet’
Pn:	Tokelauan	<i>kafa</i>	‘ <i>L. vaigiensis</i> ’
Pn:	Mangarevan	<i>kaʔa</i>	‘ <i>L. vaigiensis</i> ’
Pn:	Pukapukan	<i>kawa</i>	‘ <i>L. vaigiensis</i> ’

Geraghty (p.157) reconstructs PCP **jeqevo(o,u)*, PPn **teqefō* ‘juvenile mullet’. John Lynch (pers. comm.) suggests that a number of New Caledonian reflexes, Fwâi, Nemi, Jawe *thiāp* ‘mangrove mullet’, may be related, thus indicating PROc **jeqevo(o,u)*.

Hooper (p.204) reconstructs PPn **fua-fua* ‘juvenile mullet’. With the addition of Wayan Fijian *vua-vua* ‘small reef fish, 2–3 cm’ this reconstruction can be raised to PCP **vua-vua* ‘k.o. small fish’.

19 Silversides, hardyheads (Atherinidae)

These are small silvery fishes occurring in large schools in shallow coastal waters and estuaries where they can be netted. Munro (p.171) lists a dozen or so species and describes them as useful for bait. They are similar to sardines in appearance and behaviour.

POc **sara(Ra)* ‘sardine-like fish, possibly Atherinidae’

NNG:	Yabem	<i>(i)sala</i>	‘a small slippery fish’
MM:	Halia	<i>sela</i>	‘sardine’

PCP **sarā* ‘k.o. small schooling fish’ (Geraghty)

Fij:	Rotuman	<i>sarā</i>	‘k.o. fish’
Fij:	Bauan	<i>sarā</i>	‘small fish like <i>daniva</i> , but with round white body’
Fij:	Wayan	<i>sarā</i>	‘Atherinidae sp., small silvery fish in coastal waters’

PPn **sarā* ‘small schooling fish’ (Hooper)

Pn:	Tongan	<i>hā</i>	‘very small schooling fish, like whitebait’
Pn:	Nukuoro	<i>salā</i>	‘flying fish’
Pn:	Luangiua	<i>salā</i>	‘small blue fish’
Pn:	Sikaiana	<i>salā</i>	‘k.o. fish’
Pn:	Takuu	<i>sarā</i>	‘k.o. small fish’

20 Barracudas, sea-pikes (Sphyraenidae)

Barracudas are fast-swimming, carnivorous, pike-like fish, elongated and slender, which slash their prey with sharp dog-like teeth. Larger ones are regarded as dangerous because they have been known to attack humans. Munro calls them good fighters. They have firm delicate flavoured flesh and are a valuable food fish. They are normally caught by trolling. Larger species occur in coastal waters over shoals and around reefs (Munro p.161).

Growth stages of *Sphyraena barracuda*¹² and *S. forsteri* in Lau (SES) are *ono*, *mamalito*, *ili* (Akimichi 1978:308). Dye (1983:261) lists four growth stages for barracuda in the Niuatoputapu dialect of Tongan: *tupuŋa-ʔono*, *momoto*, *hapatū*, *ʔono*.

Five POc terms are reconstructable, with **qonos* possibly the generic. Final **-s* is indicated by Nehan and the two Te Motu reflexes. Other reconstructions refer either to a particular species or to particular growth stages.

POc **qonos* ‘mature *Sphyraena* spp., possibly generic for all barracuda’ (ACD: POc **qono*)

NNG:	Mangseng	<i>ono</i>	‘k.o. fish’
PT:	Motu	<i>ono</i>	‘ <i>Sphyraenella chrysotaenia</i> . When young, these fish are <i>tubiara</i> , when adult they are <i>ono</i> ’ (Oram)
PT:	Lala	<i>ono</i>	‘k.o. fish’
MM:	Nehan	<i>onoh</i>	‘barracuda, wahoo’
SES:	Gela	<i>ono</i>	‘ <i>S. barracuda</i> , great barracuda’
SES:	To’aba’ita	<i>ono</i>	‘ <i>S. jello</i> , pickhandle sea pike’
SES:	Ulawa	<i>ono (m^wa)</i>	‘ <i>S. jello</i> ’
		<i>ono (sau)</i>	‘ <i>Agriposphyraena barracuda</i> ’ [<i>S. barracuda</i>]
SES:	Sa’a	<i>ono</i>	‘a fish, the barracuda’
SES:	Lau	<i>ono</i>	‘ <i>S. picuda</i> and <i>S. forsteri</i> at growth stage’
SES:	Arosi	<i>ono</i>	‘ <i>A. barracuda</i> , <i>S. jello</i> ’
SES:	Bauro	<i>ono</i>	‘ <i>A. barracuda</i> ’
TM:	Buma	<i>onoro</i>	‘barracuda, <i>Sphyraena genie</i> ’
TM:	Tanema	<i>onara</i>	‘barracuda, <i>Sphyraena genie</i> ’
NCV:	Mwotlap	<i>n-on</i>	‘ <i>Sphyraena</i> spp., barracuda, sea pike’
NCV:	Lakon	<i>on</i>	‘barracuda’

PPn **qono* ‘*Sphyraena* spp., barracuda’ (Hooper)

Pn:	Tongan	<i>ʔono</i>	‘k.o. fish, the barracuda’
Pn:	Niuatoputapu	<i>ʔono</i>	‘large growth stage of barracuda’
Pn:	Tokelauan	<i>ono</i>	‘a fish, the barracuda’
Pn:	Tikopia	<i>ono</i>	‘barracuda’
Pn:	Hawaiian	<i>ono</i>	‘ <i>Acanthocybium solandri</i> , large mackerel type fish up to 3 metres in length’ (wahoo)

¹² The great barracuda or giant sea pike, *Sphyraena barracuda*, is sometimes referred to as *Sphyraena picuda* or *Agriposphyraena barracuda*.

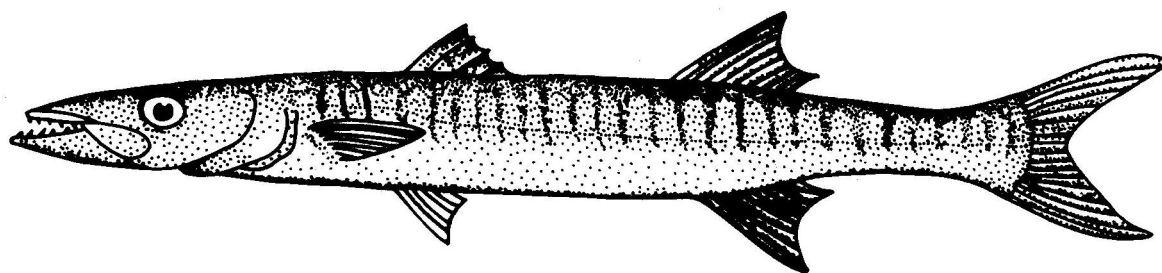


Figure 2.13 *Sphyraena jello*, slender sea pike

PMP **qalu* ‘barracuda’ (ACD)

POc **qalu* ‘*Sphyraena* taxon, incl. *S. barracuda*, great barracuda’

Adm:	Titan	<i>al</i>	‘ <i>Sphyraena picuda</i> , giant sea-pike’ [<i>S. barracuda</i>]
Adm:	Nauna	<i>kul</i>	‘thick-bodied barracuda sp.’
Adm:	Penchal	<i>kul</i>	‘thick-bodied barracuda sp.’
Adm:	Lou	<i>kol</i>	‘thick-bodied barracuda sp.’
Adm:	Seimat	<i>al</i>	‘thick-bodied barracuda sp.’
Adm:	Wuvulu	<i>alu</i>	‘thick-bodied barracuda sp.’
PT:	Misima	<i>anu(wal)</i>	‘ <i>Sphyraena</i> spp., including giant sea-pike, chevron barracuda, striped seapike’
SES:	Gela	<i>alu</i>	‘ <i>S. putnamae</i> , chevron barracuda’
SES:	Langalanga	<i>ralu</i>	‘ <i>Agrioposphyraena barracuda</i> , giant sea pike’
SES:	’Are’are	<i>raru</i>	‘ <i>A. barracuda</i> ’
SES:	Sa’a	<i>salu</i>	‘barracuda’

cf. also:

NNG:	Bariai	<i>kalu(bia)</i>	‘barracuda’
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POc **malisa* ‘barracuda’¹³

MM:	Patpatar	<i>malisa</i>	‘k.o. fish, big, long, black and white’
MM:	Kara (East)	<i>malesa</i>	‘barracuda’
SES:	To’aba’ita	<i>ma-malita</i>	‘ <i>Sphyraena barracuda</i> ’ (Barnett); ‘immature barracuda’ (Lichtenberk)
SES:	Lau	<i>ma-malito</i>	‘ <i>S. picuda</i> and <i>S. forsteri</i> at growth stage’
Fij:	Wayan	<i>sila-sila</i>	‘largest barracudas, <i>S. barracuda</i> and possibly other <i>Sphyraena</i> spp.’ (metathesis)

The cognate set below points to a four-syllable reconstruction **b^wara-wa(r,d,dr;R)a(q)*. As the parentheses indicate, the reflexes do not agree as to the identity of the second liquid. Admiralties and Papuan Tip languages reflect **d* or **dr*, Southeast Solomonian languages and Pije (New Caledonia) reflect **r*, and Tikopia (Polynesian) reflects **R*. However, it is so

¹³ The term *malisa* ‘barracuda’ is quite widespread in Papua New Guinea, spread through Tok Pisin, which adopted it from Patpatar.

unlikely that this set of forms is the result of chance that we must infer that borrowing has taken place at some point. We also note that the Papuan Tip terms are glossed ‘moray eel’.

John Lynch (pers. comm.) points out that a four-syllable reconstruction is likely to be bimorphemic, i.e. **b^wara-wa(r,d,dr,R)a(q)*, and cites New Caledonian evidence in support of this. Nêlêmwa *b^wara-gom* ‘moray eel’ seems to reflect the first morpheme, and Fwâi *walagan* ‘barracuda’ perhaps contains the second.

POc **b^wara-wa(r,d,dr,R)a(q)* ‘*Sphyraena* sp., possibly *S. jello*, the slender or pickhandle sea pike’

Adm:	Titan	<i>palawar</i>	‘sea pike’
Adm:	Andra	<i>palawadi</i>	‘k.o. fish’
PT:	Kilivila	<i>buliwada</i>	‘eel’
PT:	Dobu	<i>b^waluada</i>	‘moray eel’
PT:	Molima	<i>boluwada</i>	‘moray eel’
PT:	Tubetube	<i>b^waluada</i>	‘eel’
SES:	Longgu	<i>paraaura</i>	‘ <i>S. barracuda</i> ’
SES:	Langalanga	<i>barauro</i>	‘ <i>S. jello</i> ’
NCal:	Pije	<i>barewalak</i>	‘barracuda’
Pn:	Tikopia	<i>paravao</i>	‘ <i>S. jello</i> ’

The next reconstruction, POc **qutur*, shares the same form as a reconstruction for a very dissimilar fish, the jobfish, the latter reconstructable to PMP level (see §30). A competing gloss, ‘*Sphyraena* sp., barracuda’, is based on cognates from PT, NCV and Pn. These two etyma appear to be homonyms rather than cognates. Niuean retains a reflex of both etyma. PPT **qudur*, rather than †**qutur*, is reconstructable for both jobfish and barracuda.

POc **qutur* ‘*Sphyraena* sp., barracuda’

PT:	Muyuw	<i>kudu(wal)</i>	‘barracuda’
NCV:	Mota	<i>utu</i>	‘large long fish with very sharp teeth and small scales: a sphyraenid, barracuda’
NCV:	NE Ambae	<i>utu</i>	‘ <i>Sphyraena genie</i> , blackfin barracuda’
NCV:	Raga	<i>utu</i>	‘ <i>S. jello</i> , pickhandle barracuda’
Pn:	Niuean	<i>utu</i>	‘ <i>Sphyraena</i> spp., barracuda; <i>Aprion virescens</i> , grey jobfish’

Hooper (p.203) identifies PPn **sao-sao* as a growth stage for juvenile barracuda (see also §13, p.52). As both Wayan and Niuatopotapu distinguish three stages of growth, another growth stage can be identified as PCP **moto-moto*.

PROc **moto* ‘k.o. fish’

Mic:	Kiribati	<i>moto</i>	‘k.o. fish’
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PCP **moto-moto* ‘growth stage of *Sphyraena* sp.’

Fij:	Wayan	<i>moto-moto</i>	‘juvenile of barracuda spp.’
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PPn **moto-moto* ‘*Sphyraena* sp., probably juvenile growth stage’

Pn:	Tongan	<i>moto-moto</i>	‘k.o. swordfish’
Pn:	Niuatopotapu	<i>mo-moto</i>	‘second growth stage of barracuda’

Pn:	E Uvean	<i>moto-moto</i>	‘k.o. <i>Sphyraena</i> ’
Pn:	Emae	<i>moto-moto</i>	‘ <i>S. bleekeri</i> ’ [<i>S. putnamae</i>]
Pn:	Tikopia	<i>moto</i>	‘k.o. fish, small, light-coloured, not eaten; like lizardfish’

PMic **tarawa* ‘barracuda’ (Bender et al. 2003)

Mic:	Kiribati	<i>tāwa</i>	‘barracuda’
Mic:	Chuukese	<i>saraw</i>	‘barracuda’
Mic:	Puluwatese	<i>haraw</i>	‘great barracuda, <i>S. picuda</i> ’ [<i>S. barracuda</i>]
Mic:	Carolinian	<i>saraw</i>	‘barracuda’
Mic:	Woleaian	<i>sazawa</i>	‘barracuda’
Mic:	Ponapean	<i>saraw</i>	‘barracuda’
Mic:	Mokilese	<i>caraw</i>	‘k.o. barracuda’

21 Sand basses, giant perches, barramundis (Centropomidae (Munro: Latidae))

These fish inhabit coastal waters, often penetrating into fresh water. They are noted for brilliant glassy eyes which glow at night. Although we have an apparent POc reconstruction, **mata-pula*, lit ‘eyes’ + ‘shine’ (§24), the most consistent references of its reflexes are to *Priacanthus cruentatus* [now *Heteropriacanthus cruentatus*], ‘red globe-eye’ in Polynesian languages. The single non-Polynesian reflex, Kove (NNG) *matapula* ‘large freshwater fish’, may refer to Centropomidae.

22 Rock cods, reef cods, coral cods, groupers etc. (Serranidae)

These fish inhabit shallow coastal waters and estuaries, and are especially abundant around coral reefs and shoals. Many are brilliantly coloured in shades of red to brown, some with distinctive patterns. Nearly all are excellent eating. They are carnivorous and voracious, and one species, *Epinephelus lanceolatus*, the Queensland grouper, which can grow to three metres in length and up to 400 kg in weight, can be dangerous to divers (Munro p.264). Most, however, are under a metre in length. Genera include *Epinephelus*, *Cephalopholis* and *Plectropomus*, each with dozens of species. Oceanic languages typically distinguish many taxa.

Six POc reconstructions are supported. **kuRapu* seems reliably to refer to the most distinctive member of the family, *E. lanceolatus*. Distinguishing the meanings of the other five reconstructions has proved difficult. The lack of conformity in glosses may be due to the possibility that the terms they represent are generic for particular groupings, with wordlists naming only the most familiar members of the set.

PMP **kuRapu* ‘*Epinephelus* sp.’ (Blust 2002)

POc **kuRapu* ‘rock-cod, *Epiphenelus* sp. or spp. including *E. lanceolatus*, Queensland grouper’

Adm:	Mussau	<i>uou(na)</i>	‘giant black rock cod’
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Adm:	Titan	<i>ap^weu</i>	‘Epinephelinae, rock cod, large’ (metathesis)
NNG:	Tami	<i>gula</i>	‘ <i>Cephalopholis urodeta</i> , flag-tailed rock cod’
NNG:	Numbami	<i>kulawi</i>	‘ <i>Epinephelus</i> spp.’
MM:	Lihir	<i>kuroh</i>	‘ <i>Epinephelus polyphekadion</i> , camouflage rock cod’
SES:	Gela	<i>yulavu</i>	‘sp. of large fish, young <i>baŋa</i> , a fish large enough to swallow a man’
SES:	Longgu	<i>yulava</i>	‘ <i>Cephalopholis argus</i> , peacock rock cod’
SES:	Lau	<i>ʔulafu</i>	‘large fish, up to 2 metres long, brown or blue spots; grouper’
SES:	Kwaio	<i>ulafu</i>	‘ <i>Epinephelus</i> sp., giant grouper’
SES:	’Are’are	<i>urahu</i>	‘a fish, taboo for women and children’
SES:	Sa’a	<i>ulehu</i>	‘ <i>Oligorus gigas</i> . Six kinds of <i>ulehu</i> are named’ [<i>E. lanceolatus</i>]
SES:	Arosi	<i>ʔurahu</i>	‘ <i>Oligorus gigas</i> , famous in tales’ ¹⁴
NCV:	Namakir	<i>kuav</i>	‘grouper (generic)’
SV:	Sye	<i>uwop</i>	‘grouper’
NCal:	Iaai	<i>oī</i>	‘ <i>E. hoedti</i> , adult/large grouper’ [<i>E. cyanopodus</i>]
Mic:	Kiribati	<i>kuau</i>	‘generic for rock cods, groupers’
Mic:	Mokilese	<i>kiro</i>	‘large sea bass’
Mic:	Marshallese	<i>kūro</i>	‘ <i>E. fuscoguttatus</i> , grouper, rock cod’
Fij:	Wayan	<i>k^wavu</i>	‘ <i>E. hoedti</i> , <i>E. merra</i> , rock cod’
cf. also:			
NNG:	Kove	<i>kaburū</i>	‘enormous freshwater fish’
MM:	Teop	<i>rovu</i>	‘rock cod generic’
MM:	Marovo	<i>rava</i>	‘ <i>E. lanceolatus</i> , found in rivers and estuaries as well as reef, including outer dropoff’

PMP **keRteŋ* ‘kind of striped or spotted marine fish, *Epinephelus* sp.’ (ACD)

POc **koto(ŋ)* ‘large rock cod or grouper, *Epinephelus* sp.’

Adm:	Loniu	<i>kot</i>	‘medium-sized rock cod or grouper’
Adm:	Likum	<i>ni-kok</i>	‘large grouper, with marks like a snake’
Adm:	Nauna	<i>kot</i>	‘largest kind of grouper, spotted’
Fij:	Wayan	<i>koto</i>	‘largest kind of rock cod’
Fij:	Kadavu	<i>xoto</i>	‘k.o. large fish’

PMP **baŋbaŋ* ‘fish sp.’ (ACD)

POc **baba(ŋ)* ‘rock cod or grouper’¹⁵

¹⁴ Barnett (1978:57) names ten kinds of *ʔurahu* in Arosi, named for patterning or habitat or behaviour.

¹⁵ Oceanic cognates justify a gloss of ‘rock cod’ only for PCP. However, Balinese *baŋ-baŋ* ‘k.o. large sea fish’ may be external evidence for the gloss at POc level.

Fij:	Bauan	<i>baba</i>	‘large fish, like a snake, with a large mouth’
Pn:	Pukapukan	<i>papa</i>	‘ <i>Variola louti</i> , lunar-tailed rock cod’
Pn:	Samoaan	<i>papa</i>	‘ <i>Epinephelus</i> sp., grouper’
Pn:	E Uvean	<i>papa</i>	‘generic for some <i>Cephalopholis</i> spp.’

POc **don(o,u)* ‘spotted rock cod, taxon including *Cephalopholis* and *Plectropomus* spp.’

PT:	Motu	<i>dono</i>	‘brown spotted rock cod’ ¹⁶
SES:	Longgu	<i>ono(i)</i>	‘fish like a shark that can swallow a man’

PCP **donu* ‘adult *Plectropomus*’ (Geraghty)

Fij:	Rotuman	<i>tonu</i>	‘ <i>Cephalopholis argus</i> , peacock rock cod’
Fij:	Bauan	<i>donu</i>	‘ <i>Epinephelus maculatus</i> , brown-spotted rock cod’
Fij:	Wayan	<i>donu</i>	‘generic for several <i>Plectropomus</i> spp.’
Fij:	Kadavu	<i>donu</i>	‘ <i>Erilepis zonifer</i> ’

PPn **tonu* ‘rock cod, when large’ (Hooper: ‘*Plectropomus leopardus*, *P. maculatus*, coral trout’)

Pn:	Tongan	<i>tonu</i>	‘k.o. fish, similar to <i>ηatala</i> (rock cod)’ (<i>tonu puku</i> , <i>tonu kulī</i> , <i>tonu ʔuno</i> , <i>tonu ʔuli</i> , <i>tonu faηamea</i>)
Pn:	Niuatoputapu	<i>tonu</i>	‘growth stage of rock cod, bit larger than <i>ηatala</i> , not as big as <i>mala</i> ’
Pn:	E Uvean	<i>tonu</i>	‘ <i>Plectropomus</i> spp.’
Pn:	Samoaan	<i>tonu</i>	‘ <i>Epinephelus</i> sp., a metre or more long’
Pn:	Tokelauan	<i>tonu</i>	‘ <i>P. leopardus</i> , red-spotted rock cod’
Pn:	Tikopia	<i>tonu</i>	‘ <i>P. leopardus</i> , <i>ηatara</i> when very large’
Pn:	Tahitian	<i>tonu</i>	‘ <i>P. leopardus</i> ’

The gloss of ‘rock cod, grouper’ for the following reconstruction is based on reflexes from Dobu (PT) and Fiji. In Gitua, Arosi, Woleaian and Hawaiian, apparent reflexes refer to trevally, blenny, parrotfish or wrasse, while elsewhere in Polynesia they refer to the crescent perch, *Terapon jarbua* (§35). Such fish have little in common, and the similarity of name may be coincidental.

POc **kawa-kawa* ‘rock cod, grouper’

PT:	Dobu	<i>kawa(tabuya)</i>	‘rock cod, coral cod, reef cod, coral trout’
Fij:	Bauan	<i>kawa-kawa</i>	‘Serranidae, yellow-finned grouper’ (syn. <i>gawa-gawa</i>)
Fij:	Wayan	<i>kawa-kawa</i>	‘k.o. rock cod, poisonous’

cf. also:

NNG:	Gitua	<i>kawa-kawa</i>	‘golden trevally’
SES:	Arosi	<i>ʔaʔawa</i>	‘blenny’
Mic:	Woleaian	<i>xawe-xaw</i>	‘ <i>Chlorurus</i> spp.’ [parrotfish]

¹⁶ Ross (1994:418) discounted the Motu term as cognate on the basis that the initial consonants of Motu *dono* ‘brown spotted rock cod’, Lala *dono* ‘k.o. fish’ and Roro *tono* ‘k.o. fish’ all reflect POc **s-*. However Motu *d-*, unlike the other two, also reflects POc **d*.

Pn:	Tongan	<i>kava-kava</i>	‘k.o. fish with small scales and longitudinal stripes, the scavenger fish’ [<i>Lethrinus</i> sp.? See * <i>oka</i> , §36]
Pn:	Niutoputapu	<i>kava-kava</i>	‘ <i>T. jarbua</i> ’
Pn:	E Uvean	<i>kava-kava</i>	‘ <i>T. jarbua</i> ’
Pn:	Samoa	<i>ʔava-ʔava</i>	‘ <i>Terapon</i> sp.’
Pn:	Hawaiian	<i>ʔaʔawa</i>	‘ <i>Bodianus bilunulatus</i> , wrasse’

POc **kalika* ‘Epinephelidae, rock cod’

Adm:	Wuvulu	<i>alia</i>	‘grouper sp.’
Adm:	Titan	<i>kaliy</i>	‘Epinephelidae, rock cod’
Adm:	Ere	<i>kaliy</i>	‘grouper sp.’
Adm:	Lindrou	<i>kalik</i>	‘grouper sp.’
Mic:	Satawalese	<i>yaniy</i>	‘Epinephelidae, rock cod (generic)’

Distinctive markings are often reflected in compound terms such as the following:

MM:	Patpatar	<i>mata girit</i>	‘k.o. fish’ (<i>mata</i> ‘face’, <i>girit</i> ‘to sketch, draw’)
MM:	Halia	<i>mata goumana</i>	‘giant chanda perch, freshwater fish’ (<i>goum</i> ‘marking, scar’)
SES:	Gela	<i>aŋora gere</i>	‘ <i>Cephalopholis sexmaculata</i> , six spotted rock cod’ (<i>gere</i> ‘to sketch, make lines’)
SES:	Gela	<i>kusele gere-gerea</i>	‘ <i>Epinephelus quoyanus</i> , longfin rock cod (<i>gere-gere</i> ‘to sketch, make lines’)

Lower level reconstructions include Proto North Vanuatu **tab^wale* ‘grouper fish’ (François 2005:499), PCP **ŋ^wajala* ‘*Epinephelus* spp.’, PPn **ŋatala* ‘*Epinephelus*, smaller stage’, PCP/PPn **munua* ‘large *Epinephelus* sp.’, PCP **dralā* ‘red *Cephalopholis* sp.’, PPn **lalī* ‘red rock cod spp.’, PPn **fāpuku* ‘*Epinephelus* sp., possibly *E. polyphekadion*, marbled sea bass’, PPn **loi* ‘*Cephalopholis argus*, peacock rock cod’, PPn **mataele* ‘Serranidae’ (Geraghty p.149, Hooper pp.204–205)

23 Flagtails (Kuhliidae)

Munro (p.254) describes Kuhliidae as small to moderate-sized fishes, generally inhabiting shallow coastal waters, with some species preferring brackish or fresh water, often in the vicinity of mangroves. Salt-water species are a brilliant silver. Our only reconstructions are lower-level: PCP **sere*, PPn **sesele* ‘immature *Kuhlia rupestris*’, PCP **drava* ‘k.o. small freshwater fish, possibly *Kuhlia* sp.’ (Geraghty p.150) and PPn **safole* ‘*Kuhlia* spp., flagtail’ (Hooper p.206).

24 Bigeyes, bullseyes (Priacanthidae)

These are small to moderate-sized fishes of distinctive appearance. All are bright rosy with a rough sandpapery skin. The eye is large, about half head size. They are nocturnal, typically spending daylight in caves or under ledges (Munro p.284).

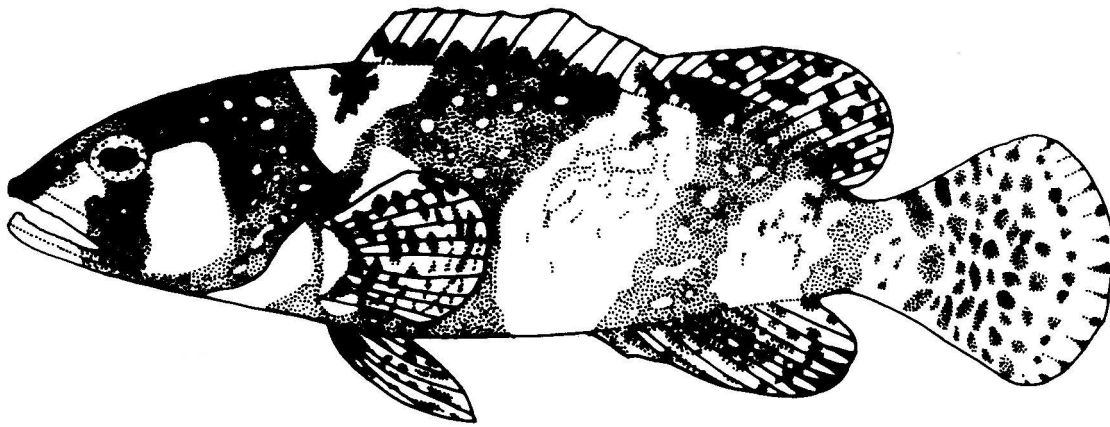


Figure 2.14 *Epinephelus lanceolatus*, Queensland grouper

The PPn term, **mata-pula* ‘*Priacanthus cruentatus*, red globe-eye’ is a descriptive compound (lit. *mata* ‘eye’ + *pula* ‘shine, glow’) (Hooper p.202). The same compound is found in Kove (NNG), where the referent is a large freshwater fish, probably Centropomidae (§21).

25 Cardinalfishes (Apogonidae)

Cardinalfish are small carnivorous fishes. Many are vividly coloured, with striking patterns of bands, stripes or spots. Most live in or around coral reefs and amongst weeds, and in shallow tidal pools, although some prefer brackish water and others inhabit deeper water. Like the Priacanthidae, they are nocturnal, hiding under ledges or in crevices during daylight. The male usually carries the eggs and newly hatched young in its mouth (Munro p.241). No reconstructions have been made.

26 Jacks, trevallies, scads, horse mackerels, kingfishes, darts, rainbow runners and leatherskins (Carangidae)

This is a large, widely distributed family of fast-swimming surface predators which generally inhabit the coastal edge of the deep water. Larger species frequent edges of reefs. Most congregate in schools, and can be caught along beaches with seines. Their flesh is of good texture and flavour (Munro p.221). Oceanic languages typically distinguish many taxa.

In Niuatoputapu, deep sea anglers take pride in withstanding the rigours of a dusk to dawn session of *tau?otule*, fishing from an anchored boat in around 17 fathoms of water, and using a pressure gas lamp to attract the fish (big-eyed scad, *Selar crumenophthalmus*) (Dye 1983:250).

I have six POc reconstructions, but can be confident of matching terms with specific genera for only four, POc **qatule* ‘*Selar* spp., scad’, POc **pilu* ‘*Caranx* spp., trevally’, POc **lasi* ‘*Scomberoides* spp., leatherskin’ and POc **kamaRi* ‘*Elagatis bipinnulata*, rainbow runner’. Other genera include *Carangoides*, *Trachinotus*, *Gnathanodon*, and *Decapterus*. Where the

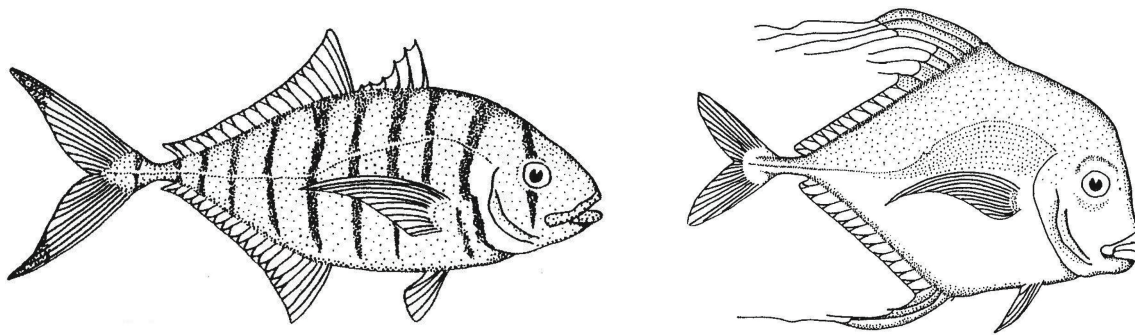


Figure 2.15 Left *Gnathanodon speciosus*, golden trevally. Right *Alectis indica*, plumed trevally.

reflexes cover a range of genera, the reconstructions are simply labelled carangid. The popularity of these fish both as sporting fish and as food, and their role in places as appropriate tribute for chiefs, are reflected by the number of terms for their growth stages. Here I can reconstruct PPn terms for growth stages, *lupo-lupo for the smallest and *qulua for a large caranx, (not necessarily the largest).

PMP *qatulay 'Trachurops crumenophthalmus, the big-eyed scad' (ACD)

POc *qatule 'Selar spp. including *S. crumenophthalmus*, big-eyed scad'

Adm:	Titan	atul	'scad (generic)'
PT:	Molima	?atune	'fish that looks like pilchard'
PT:	Muyuw	geytula	'trevally, scad' (Damon)
PT:	Misima	atuni	'generic for trevally, scad'
Mic:	Kosraean	ætol	'large mackerel'
Mic:	Sonsorolese	adir	'caranx'

PCP *qatule 'Selar crumenophthalmus' (Geraghty)

Fij:	Rotuman	afule	'kind of fish (silver bream?)'
Fij:	Wayan	atule	' <i>S. crumenophthalmus</i> '
Fij:	Kadavu	ātule	' <i>Caesio</i> , <i>Rastrelliger</i> spp.'

PPn *qatule 'Selar crumenophthalmus, silver scad' (Hooper)

Pn:	Niuatoputapu	?otule	' <i>S. crumenophthalmus</i> '
Pn:	Niuean	atule	'big-eyed scad'
Pn:	E Uvean	?atule	' <i>S. crumenophthalmus</i> '
Pn:	Anutan	ature	'type of small fish that comes into the shallow reef water in large schools. Ranges in size from about one to one and a half pounds'
Pn:	Tahitian	ature	'horse-mackerel'
Pn:	Hawaiian	akule	'big-eyed or goggle-eyed scad, <i>S. crumenophthalmus</i> '

PMP *bilu[bilu] 'Caranx spp., trevally' (ACD; Blust 2002: *pilu 'Gnathanodon sp.')

POc *pilu 'Caranx sp. or spp., trevally'

NNG:	Gitua	<i>pilu</i>	‘k.o. trevally’
		<i>pilu-pilu</i>	‘small trevally varieties’
PT:	Misima	<i>vilu</i>	‘ <i>Gnathanodon speciosus</i> , golden trevally’
NCV:	Lakon	<i>vɔl</i>	‘ <i>Caranx ignobilis</i> , giant trevally’
NCV:	Dorig	<i>vɔl</i>	‘ <i>C. ferdau</i> , blue trevally’
NCal:	Iaai	<i>vine(s)</i> ¹⁷	‘large <i>Caranx</i> sp.’
PCP * <i>vilu</i> ‘ <i>Gnathanodon</i> , <i>Trachinotus</i> ’ (Geraghty)			
Fij:	Bauan	<i>vilu</i>	‘small deep-bellied fish like the <i>saga</i> (trevally, <i>Caranx</i> spp.), but dark in color and with no teeth’
Fij:	Wayan	<i>vilu</i>	‘ <i>Gnathanodon speciosus</i> ’
PPn * <i>filu</i> ‘Carangidae’ (Hooper)			
Pn:	Tongan	<i>filu</i>	‘k.o. fish’
Pn:	E Uvean	<i>filu</i>	‘ <i>Trachinotus</i> ’
Pn:	Samoaan	<i>filu</i>	‘Carangoides’
Pn:	Hawaiian	<i>hilu</i>	‘various species of reef fishes of the genus <i>Coris</i> ’
Reflexes of the next set have consistent reference to larger species only in the Central Pacific. <i>Caranx ignobilis</i> and <i>C. sexfasciatus</i> are among the largest of the trevallies.			
POc * <i>qulua</i> ‘carangid’ (ACD: ‘ <i>Caranx</i> spp.’)			
NNG:	Gedaged	<i>ulua</i>	‘white marine fish about 20 cm long’
PT:	Dobu	<i>ʔuliya</i>	‘ <i>Decapterus macarellus</i> , mackerel scad’
PPn * <i>qulua</i> ‘ <i>Caranx</i> sp., probably mature phase of <i>C. ignobilis</i> ’ (Hooper)			
Pn:	Tongan	<i>ʔulua</i>	‘very large fish: a full-sized <i>lupo</i> (trevally)’
Pn:	Niutoputapu	<i>ʔulua</i>	‘largest growth stage of trevally’
Pn:	Niuean	<i>ulua</i>	‘ <i>C. ignobilis</i> , <i>C. sexfasciatus</i> ’
Pn:	Samoaan	<i>ulua</i>	‘name given to two species of fish of genus <i>Caranx</i> when about a metre long, and considered to be a present fit for a chief’
Pn:	Rennellese	<i>ʔugua</i>	‘generic name for some crevalles (or trevallies), e.g. plumed trevally, mirrorfish, long-finned trevally’
Pn:	Tahitian	<i>urua</i>	‘cavalla’ (Henry 1971:390)
Pn:	Marquesan	<i>uʔua</i>	‘ <i>C. ignobilis</i> ’
Pn:	Hawaiian	<i>ulua</i>	general name for <i>Caranx</i> spp.’
cf. also:			
Mic:	Kiribati	<i>urua</i>	‘adult trevally’ (for † <i>unua</i>)
POc * <i>mamula</i> ‘carangid’			
NNG:	Tami	<i>mamul</i>	‘ <i>Gnathanodon speciosus</i> , golden trevally’
PT:	Kilivila	<i>mamila</i>	‘ <i>Chorinemus tolooparah</i> , queenfish’ [<i>Scomberoides lysan</i>]
MM:	Lihir	<i>mamul</i>	‘ <i>Carangoides</i> spp., small trevallies’ (<i>mamul</i> is generic for trevally in Solomons Pidgin)

¹⁷ Iaai normally does not retain final consonants, so this may have been a compound (John Lynch, pers. comm.).

SES:	Gela	<i>mamula</i>	‘k.o. small fish’
SES:	To’aba’ita	<i>mamula</i>	‘ <i>Caranx melampygus</i> , bluefin trevally’
SES:	Kwaio	<i>mamula</i>	‘k.o. fish’
SES:	Lau	<i>mamula</i>	‘k.o. fish’ (=ʔeda-ʔeda)
SES:	Arosi	<i>mamura</i>	‘k.o. fish’
SES:	’Are’are	<i>mamu</i>	‘ <i>C. melampygus</i> ’
Mic:	Woleaian	<i>mam^wu(six)</i>	‘mackerel scad, <i>Decapterus</i> ’ (-six ‘small’)

Oceanic reflexes of the next set refer fairly consistently to *Scomberoides* spp. (=Chorinemus), fishes known variously as leatherskin, whitefish, queenfish, skinnyfish or giant dart. They can grow to over a metre in length. Blust (ACD) has reconstructed PMP **lajih* ‘dolphinfish’ and PMP **daRi* ‘leatherskin’, with Oceanic reflexes of the former apparently referring to the leatherskin. The two Mutu (NNG) terms below suggest that the dolphinfish may sometimes be referred to as the leatherskin’s mother. For dolphinfish sets, see §27 below.

PMP **lajih* ‘dolphinfish’ (ACD)

POc **laci* ‘*Scomberoides* spp., leatherskin, including *S. lysan*’

Adm:	Ere	<i>las</i>	‘flat fish found in river mouths’
Adm:	Loniu	<i>las</i>	‘flattish fish similar to a mackerel’
Adm:	Leipon	<i>las</i>	‘k.o. flat, silvery fish’
Adm:	Titan	<i>las</i>	‘ <i>Scomberoides lysan</i> , skinnyfish or giant dart’
Adm:	Andra	<i>las(ei)</i>	‘ <i>Ulua mandibularis</i> , jack’ [<i>U. mentalis</i>]
NNG:	Mutu	<i>las</i>	‘ <i>Scomberoides commersonnianus</i> , leatherskin’
		<i>las tina</i>	‘ <i>Coryphaena hippurus</i> , dolphinfish’
NNG:	Gedaged	<i>las</i>	‘whitish-grey marine fish about 2.5 metres long’
NNG:	Bing	<i>lās</i>	‘leatherskin’
PT:	Motu	<i>ladi</i>	‘ <i>Chorinemus</i> spp., leatherskin’ [<i>Scomberoides</i>]
MM:	Patpatar	<i>lasis</i>	‘k.o. fish, big and white’
MM:	Lihir	<i>las</i>	‘ <i>S. lysan</i> , double-spotted queenfish’
MM:	Nehan	<i>lah</i>	‘leatherskin, giant dart’
MM:	Marovo	<i>lasi-lasi</i>	‘ <i>S. commersonnianus</i> , leatherskin’
SES:	Gela	<i>lai-lahi</i>	‘ <i>Scomberoides</i> generic’
SES:	Arosi	<i>rasi</i>	‘fish sp.’
Mic:	Kiribati	<i>nari</i>	‘ <i>S. lysan</i> ’
Mic:	Ponapean	<i>lāç</i>	‘ <i>Atule mate</i> , jack’
Mic:	Mokilese	<i>lāt</i>	‘fish sp., kind of skipjack’

PCP **laði* ‘*Scomberoides* sp.’ (Geraghty)

Fij:	Wailevu	<i>laði</i>	‘ <i>Scomberoides tol</i> ’
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PPn **lai* ‘*Scomberoides*’ (Hooper)

Pn:	Tongan	<i>lai</i>	‘k.o. fish’
Pn:	Niuean	<i>lai(loa)</i>	‘ <i>S. lysan</i> , leatherskin or leatherback’ (<i>loa</i> ‘long’)
Pn:	Samoan	<i>lai</i>	‘ <i>Scomberoides</i> sp.’
Pn:	Hawaiian	<i>lai</i>	‘ <i>Scomberoides</i> sp.’

POc **kamaRi* ‘*Elagatis bipinnulata*, rainbow runner’

Adm:	Titan	<i>kamei</i>	‘ <i>E. bipinnulata</i> ’
Adm:	Nali	<i>kemei</i>	‘ <i>E. bipinnulata</i> ’
Mic:	Kiribati	<i>kamā</i>	‘ <i>E. bipinnulata</i> ’

Malcolm Ross (vol.2, pp.49-50) reconstructs POc **mala* ‘resembling’ which occurs in plant names and occasionally, it seems, in fish names as well. Of the terms listed in the set below, those consisting of a compound *mala* + modifier could all be considered ‘resembling’ examples. If this is the common meaning of **mala* we would expect it to be reflected in terms for fishes not necessarily related.¹⁸ The fact that the most frequent reference in this set is to carangids suggests that a similar form was a POc fish name. However, because the carangid examples are largely restricted to the Solomons (the only exception being Samoan), it may be that **mala* came to be used in the Solomons as a generic for carangids, as Hviding has suggested for Marovo. For this reason no POc reconstruction is proposed.

MM:	Patpatar	<i>mala(la)</i>	‘k.o. fish’
MM:	Nehan	<i>mala(ɲuh)</i>	‘ <i>Trachinotus russelli</i> , common dart’ (<i>ɲuh</i> ‘kiss’) [<i>T. botla</i>]
MM:	Marovo	<i>marā</i>	‘generic for all Carangids (trevallies etc.)’ (15 compound terms for kinds) (for † <i>mala</i>)
SES:	Gela	<i>mala(boro)</i>	‘ <i>Selaroides leptolepis</i> , smooth-tailed trevally’ (<i>mala</i> ‘as, like’; <i>boro</i> ‘bottom, keel of canoe’)
SES:	Gela	<i>mala(hau)</i>	‘various kingfish and jack spp.’ (<i>hau</i> ‘old’)
PPn <i>*mala</i> ‘k.o. fish’			
Pn:	Tongan	<i>mala</i>	‘large serranid’
Pn:	Niuaotuputapu	<i>mala</i>	‘k.o. fish’
Pn:	Samoan	<i>mala(uli)</i>	‘certain fish of genus <i>Caranx</i> (considered fit for chiefs) when about 30 cm long’ (<i>uli</i> ‘black’)
Pn:	Tokelauan	<i>mala(tea)</i>	‘ <i>Cheilinus undulatus</i> ’ (<i>tea</i> ‘white’)

PEOc **taliku* ‘Carangid’

SES:	Gela	<i>taliyu(mane)</i>	‘ <i>Caranx ignobilis</i> , giant trevally’ (<i>mane</i> ‘male’)
SES:	Arosi	<i>ariu</i>	‘k.o. fish, kingfish’
SES:	Kahua	<i>ariu</i>	‘jack, Carangidae (generic)’
NCV:	NE Ambae	<i>taliu</i>	‘trevally, Carangidae’ (loss of <i>k</i> unexplained)

PROc **lubo* ‘*Caranx* spp.’

SV:	Anejoñ	<i>ne-rop^w</i>	‘ <i>Caranx melampygus</i> ’
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PPn **lupo* ‘*Caranx* spp. (Hooper)

PPn **lupo-lupo* ‘juvenile *Caranx* spp.’ (Hooper)

¹⁸ Blust (1986:73) lists a number of fish names with prefix *mala* from Cebuano (WMP) (*mala-pati* ‘k.o. fish’, *mala-sugi* ‘swordfish, sailfish’, *mala-tinduk* ‘mackerel scad’), and one from Samar (WMP) (*mala-punti* ‘blue-spotted sea perch’), but there is insufficient information to identify a common meaning.

Pn:	Tongan	<i>lupo</i>	‘mature <i>Caranx</i> ’
		<i>lupo-lupo</i>	‘juvenile <i>Caranx</i> ’
Pn:	Niuean	<i>lupo-lupo</i>	‘juvenile <i>Caranx</i> spp.’
Pn:	Pukapukan	<i>lupo-lupo</i>	‘juvenile <i>Caranx</i> ’
Pn:	Rennellese	<i>gupo</i>	‘juvenile <i>Caranx</i> ’
Pn:	Tokelauan	<i>lupo-lupo</i>	‘juveniles of all <i>Caranx</i> spp.’

Lower level reconstructions include Proto North Vanuatu **dilit(i,u)* ‘*Caranx* spp.’ (François 2005:494), PCP **i-kata*, PPn **kata* ‘growth term for *Caranx* sp’, PCP/PPn **laweŋa* ‘*Alectis indicus*, plumed trevally or mirrorfish’, PCP **jeu*, PPn **teu* ‘Carangid’, PPn **aseu* ‘*Caranx* sp.’, PPn **tafaquli* ‘*Caranx* sp., possibly *C. lugubris*’ and PPn **soke(lau)* ‘Carangid’ (Geraghty pp.150–151, Hooper pp.206–210).

27 Dolphinfishes (Coryphaenidae)

Dolphinfish are large swift-swimming powerful fish, pelagic and mostly oceanic, but sometimes found around reefs. They are spectacular fighters which leap from the water when hooked. They have brilliant colouration and excellent flesh. Munro (pp.218–219) records two species for the family, with *Coryphaena hippurus* being larger and better known than *C. equiselis*. They are not to be confused with dolphins, cetaceans of the family Delphinidae, although some Polynesian dictionaries gloss their term for *C. hippurus* as ‘dolphin’.

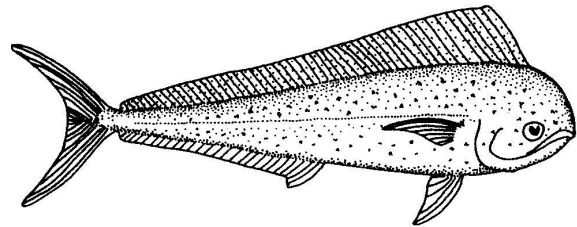


Figure 2.16 *Coryphaena hippurus*, common dolphinfish

PMP **palata* ‘fish sp.’ (ACD: PWMP **palata*)

POc **palata* ‘*Coryphaena hippurus*, dolphinfish’

MM:	Marovo	<i>palata</i>	‘ <i>Coryphaena hippurus</i> ’
SES:	Arosi	<i>harata</i>	‘a fish sp.’
Mic:	Ponapean	<i>palaç</i>	‘fish, about 30 cm, longish nose, body light red, head salmon-pink, tail and fins dark red’ (Christian 1899)

cf. also:

NNG:	Kove	<i>palana</i>	‘dolphinfish’
MM:	Tolai	<i>palatāga</i>	‘k.o. fish’

Hooper (p.210) reconstructs PPn **masi-masi* ‘*Coryphaena hippurus*, dolphinfish’, but we have found no non-Polynesian cognates.

28 Ponyfishes, slimys (*Leiognathidae*)

Ponyfishes are all very small, with a highly protractile mouth, the feature which is reflected in an alternative name, pouters. Slime is exuded in large quantities after capture. Large schools can be caught along sheltered beaches and estuaries (Munro, p.237). In Lau (Malaita) they are freshwater fish, moving between the rivers and the lagoon (Akimichi 1978:310). Few terms have been located and no reconstructions made.

29 Fusiliers (*Caesionidae*)

Most fusiliers are brilliantly coloured with iridescent blue and yellow. They can be taken in great abundance near coral reefs and rocky shores. Very large schools migrate for long distances. They swim with synchronised quick precision. Flesh is coarse but not unpalatable (Munro p.300). Hooper quotes Lewis et al. as describing them as important tuna baitfish in many areas (Hooper p.192). This may explain why the Tokelauan term for mackerel scad, a different fish but also a tuna baitfish, is cognate with terms for fusilier species in the following set.

PMP **sulig* ‘*Caesio* sp., fusilier’ (Blust 2002)

POc **suli(k)* ‘*Caesionidae*, fusilier’

Adm:	Loniu	(<i>ña</i>) <i>cun</i>	‘fusilier’
MM:	Lihir	<i>sil</i>	‘ <i>Caesionidae</i> (generic)’
Mic:	Satawalese	<i>tīn</i>	‘ <i>Caesio</i> spp., fusilier’

PPn **huli* ‘fusilier sp.’ (Hooper: ‘fusilier or mackerel sp.’)

Pn:	Tongan	<i>huli</i>	‘k.o. fish’
Pn:	Samoa	<i>uli(sega)</i>	‘ <i>Caesio</i> sp.’
Pn:	Tokelauan	<i>uli</i>	‘ <i>Decapterus pinnulatus</i> , mackerel scad’ [<i>D. macarellus</i>]
Pn:	K’marangi	<i>uli</i>	‘ <i>Caesio coerulaureus</i> , gold-banded fusilier’
Pn:	Pukapukan	<i>uli</i>	‘large size of <i>tikava</i> , <i>Pterocaesio tile</i> , tricoloured fusilier’

PCP/PPn **tikawa* ‘*Caesio* sp.’ is reconstructed by Geraghty (p.152), Hooper (p.210).

30 Snappers or sea-perch, basses, jobfishes (*Lutjanidae*)

Snappers are rather large fish with a sheathed maxillary, typically red or yellow in colouring. Although known largely as reef fishes inhabiting rocky bottoms, the family includes deep sea snappers. Their flesh is highly esteemed, although a few have been implicated in ciguatera poisoning (Munro p.288).

There are many species of *Lutjanidae*, some quite distinctive in markings, and Oceanic languages typically distinguish several taxa. I have seven possible POc reconstructions but, except for POc **qutur* ‘*Aprion virescens*, green jobfish’, it is difficult to give precise glosses. Some are probably names of particular species, one or two are generic for two or more species, others may be names of particular species at a certain stage of growth.

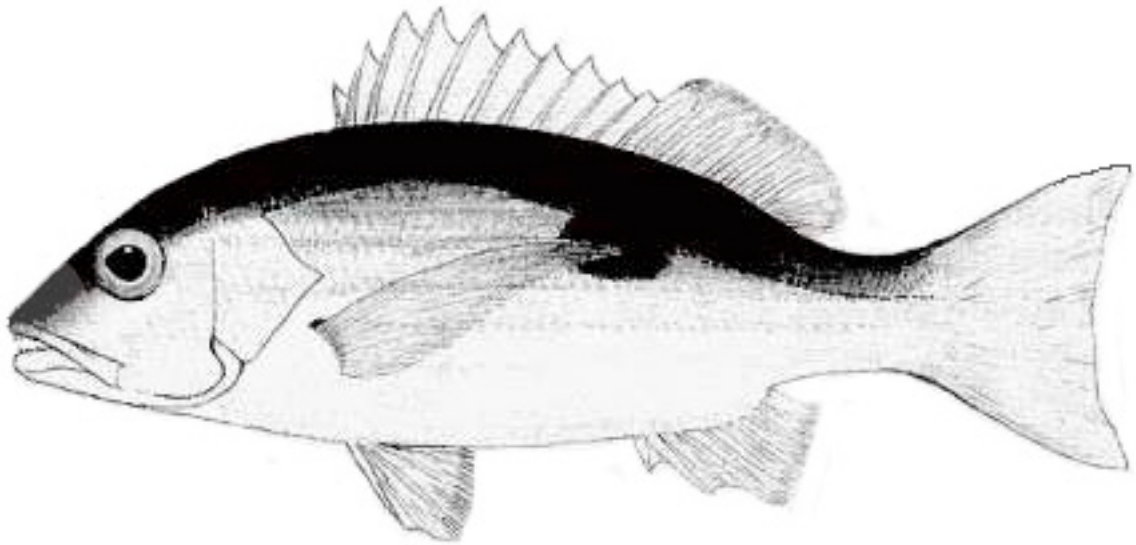


Figure 2.17 *Lutjanus fulviflamma*, Dory snapper

The proposed gloss of POc **qutur* is based on the agreement of non-Oceanic cognates with those of the Central Pacific.¹⁹ *Aprion virescens*, the green jobfish, is found at depths that vary from 0–180 metres (FISHBASE). See §20 regarding the homophony of this etymon with POc **qutur* ‘k.o. fish, possibly *Sphyraena* sp., barracuda’.

PMP **qutur* ‘green jobfish’ (Blust 2002: **qutun*)

POc **qutur* ‘*Aprion virescens*, green jobfish’

PT:	Misima	<i>utul</i>	‘ <i>Aprion virescens</i> , green jobfish’
MM:	Tolai	<i>ut</i>	‘k.o. fish’
SES:	Arosi	<i>uu</i>	‘k.o. freshwater fish’

PCP **qutu* ‘*Aprion virescens*, grey jobfish’ (Geraghty: **quto*)

Fij:	Wayan	<i>otu</i>	‘grey snapper, <i>Aprion virescens</i> ’
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PPn **qutu* ‘*Aprion virescens*, grey jobfish’ (Hooper)

Pn:	Tongan	<i>utu</i>	‘k.o. fish’
Pn:	Niuean	<i>utu</i>	‘ <i>Sphyraena</i> spp., barracuda; <i>Aprion virescens</i> , grey jobfish’
Pn:	E Uvean	<i>ʔutu</i>	‘ <i>A. virescens</i> ’
Pn:	Rennellese	<i>ʔutu</i>	‘large fish with a long body, probably green jobfish, <i>A. virescens</i> ’
Pn:	Pukapukan	(<i>palu</i>) <i>wutu</i>	‘ <i>A. virescens</i> , green jobfish’
Pn:	Samoan	<i>utu</i>	‘ <i>A. virescens</i> ’
Pn:	Tahitian	<i>utu</i>	‘ <i>A. virescens</i> ’
Pn:	Hawaiian	<i>uku</i>	‘a deep-sea snapper, <i>Aprion</i> spp.’

¹⁹ Pendau (WMP) *utur* ‘jobfish’ (Phil Quick pers. comm.) and Sangir *utude* ‘kind of deep-sea fish caught by line’ (ACD).

In the set below, the Andra, Kilivila and Temotu items reflect **b^wapa* rather than **b^wawa*. I have no explanation for this variation. The Fijian and Polynesian reflexes show coalescence of **-wa* as *-o*.²⁰

POc **b^wa[p,w]a* ‘*Lutjanus* spp., snapper’

Adm:	Andra	<i>p^wah</i>	‘ <i>L. ehrenbergi</i> , snapper’
Adm:	Titan	<i>p^wa</i>	‘ <i>L. fulviflamma</i> , blackspot sea-perch’
NNG:	Yabem	<i>(i)bɔa</i>	‘Terapon perch’
PT:	Kilivila	<i>b^wava</i>	‘ <i>L. fulviflamma</i> ’
TM:	Buma	<i>bavolo</i>	‘ <i>L. fulvus</i> ’
NCV:	Vera’a	<i>bawa</i>	‘ <i>L. fulviflamma</i> ’
NCV:	Mwotlap	<i>na-baw</i>	‘ <i>L. fulvus</i> , <i>L. kasmira</i> ’
NCV:	Olrat	<i>paw</i>	‘ <i>L. monostigma</i> ’
Fij:	Kadavu	<i>bō</i>	‘ <i>Lutjanus adetii</i> , yellow-banded snapper’
Fij:	Wayan	<i>bō</i>	‘ <i>L. gibbus</i> , paddletail’
Pn:	Niuean	<i>(palu) pō</i>	‘ <i>Aphareus furca</i> , blue smalltooth jobfish’

cf. also:

NNG:	Bukawa	<i>(i)bɔ?</i>	‘Terapon perch’
NCV:	Mota	<i>pawa</i>	‘ <i>Serranus</i> ’

Lutjanidae and *Lethrinidae* are from the same sub-order of perch-like fishes. It is possible that the next reconstruction included members of both families.

POc **sabutu* ‘snapper (*Lutjanus*) or emperor (*Lethrinus*) sp. or spp.’

Adm:	Loniu	<i>saput</i>	‘ <i>Lethrinus kallopterus</i> , yellow-spotted emperor’ [<i>L. erythracanthus</i>]
PT:	Sinaugoro	<i>rabutu</i>	‘a reef fish’
PT:	Motu	<i>dabutu</i>	‘ <i>Acanthopagrus berda</i> , black bream’

PCP **(ð,s)abutu* ‘*Lutjanus* and *Lethrinus* spp.’ (Geraghty)

Fij:	Rotuman	<i>saputu</i>	‘k.o. fish’
Fij:	Wayan	<i>ðābutu</i>	‘generic for several species of <i>Lutjanidae</i> and <i>Lethrinidae</i> , including <i>Lutjanus sebae</i> , red emperor, and <i>Lethrinus nebulosus</i> , spangled emperor’

PPn **s(a,ā)putu* ‘*Lutjanus* and *Lethrinus* spp.’ (Hooper: ‘*Lutjanus* sp.’)

Pn:	Tongan	<i>hoputu</i>	‘ <i>Lethrinus miniatus</i> , possibly also <i>Lutjanus gibbus</i> ’
Pn:	Tikopia	<i>saputu</i>	‘ <i>Lethrinus kallopterus</i> ’ [<i>L. erythracanthus</i>]
Pn:	K’marangi	<i>hāpoto</i>	‘ <i>Lutjanus rivulatus</i> or <i>Lethrinus</i> ’
Pn:	Tahitian	<i>haputu</i>	‘ <i>L. rivulatus</i> ’

cf. also:

MM:	Teop	<i>kabusi</i>	‘ <i>Lutjanus</i> (generic)’
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²⁰ For another example of **-wa* becoming *-o* see POc **majewa* (p.31).

POc **ta(Ra)qea* ‘*Lutjanus* spp., snapper, sea perch’

Adm:	Titan	<i>dra</i>	‘ <i>Lutjanus rufolineatus</i> , yellow-lined snapper, <i>L. kasmira</i> , yellow-and-blue seaperch’
Adm:	Loniu	<i>ta</i>	‘k.o. fish’
Adm:	Lenkau	<i>dak</i>	‘ <i>Lutjanus</i> spp., seaperch’
NNG:	Yabem	<i>(i)tɛ?</i>	‘k.o. snapper’
NNG:	Bukawa	<i>(i)ta?</i>	‘k.o. snapper’
NCV:	Lakon	<i>tā-tā</i>	‘ <i>L. kasmira</i> ’

PPn **tāqea* ‘*Lutjanus* sp., probably *L. gibbus*’ (Hooper reconstructs **tāeqa*)

Pn:	E Uvean	<i>tāeʔa</i>	‘ <i>L. fulviflamma</i> , blackspot seaperch’ (metathesis)
Pn:	Pukapukan	<i>tāea</i>	‘ <i>L. gibbus</i> , paddle-tail snapper’
Pn:	Tokelauan	<i>tāea</i>	‘ <i>L. gibbus</i> ’
Pn:	Tuvalu	<i>taea</i>	‘ <i>L. fulvus</i> , yellow-margined seaperch, <i>L. gibbus</i> , paddletail’
Pn:	Mangarevan	<i>tāea</i>	‘ <i>L. gibbus</i> ’
Pn:	Tahitian	<i>tāea</i>	‘ <i>L. gibbus</i> ’

POc **tasiwa* ‘*Lutjanus* spp.’

Adm:	Loniu	<i>tus</i>	‘ <i>Lutjanus sebae</i> , red emperor’
PT:	Motu	<i>tadiva</i>	‘ <i>Lutjanus gibbus</i> , paddle-tail’
SES:	Lau	<i>ak^wasi (mai)</i>	‘generic for four <i>Lutjanus</i> spp.’ (Akimichi) (reflects metathesised form <i>*tawasi</i>)

PCP **tasiwa* ‘*Lutjanus* sp.’ (Geraghty)

Fij:	Rotuman	<i>sasiva</i>	‘ <i>L. fulviflamma</i> , black spot seaperch’
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PPn **tahiwa* ‘*L. monostigma*, one spot seaperch’ (Hooper: **taqiwa*)

Pn:	Niuatoputapu	<i>tāiva</i>	‘ <i>Lutjanus</i> sp.’
Pn:	Pukapukan	<i>tāiva</i>	‘ <i>L. monostigma</i> ’
Pn:	Samoa	<i>tāiva</i>	‘ <i>Lutjanus</i> sp. when about 60 cm long’
		<i>taiva uli-uli</i>	‘ <i>L. monostigma</i> ’
Pn:	Tokelauan	<i>tāiva</i>	‘ <i>L. monostigma</i> , one spot seaperch’
Pn:	Tahitian	<i>tāiva-iva</i>	‘ <i>L. monostigma</i> ’

POc **p(a,e)ŋa* ‘red *Lutjanus* spp.’

Adm:	Titan	<i>peŋa</i>	‘ <i>Lutjanus sebae</i> , red emperor, <i>L. sanguineus</i> , seaperch’
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PPn **faŋa-mea* ‘red *Lutjanus* spp., especially *L. bohar*, red bass or red snapper (-*mea* ‘reddish’) (Hooper)

Pn:	Tongan	<i>faŋa-mea</i>	‘ <i>L. bohar</i> ’
Pn:	Niuean	<i>(palu) faŋa-mea</i>	‘ <i>Etelis carbunculus</i> , ruby snapper’
Pn:	E Uvean	<i>faŋa-mea</i>	‘growth term of <i>L. bohar</i> ’
Pn:	Tokelauan	<i>faŋa-mea</i>	‘ <i>L. bohar</i> ’
Pn:	Tuamotuan	<i>faŋa-mea</i>	‘ <i>L. bohar</i> ’

POc **k(i,e)pV* ‘*Lutjanus* spp., sea perch’

Adm:	Penchal	<i>kip</i>	‘ <i>Lutjanus</i> spp., sea-perch’
Adm:	Lou	<i>kip</i>	‘ <i>Lutjanus</i> spp., sea-perch’
Adm:	Lenkau	<i>kep</i>	‘ <i>Lutjanus</i> spp., sea-perch’
Adm:	Andra	<i>kih</i>	‘ <i>L. bohar</i> , red bass’
Adm:	Loniu	<i>keh</i>	‘sea perch spp.’
NNG:	Takia	<i>kef-kef</i>	‘black reef fish’

cf. also:

Pn:	E Uvean	<i>kivi</i>	‘ <i>L. bohar</i> ’ (for † <i>kifi</i>)
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Also reconstructed are PCP **batisai* ‘*Lutjanus monostigma*’, PCP **k^wak(a,e)* ‘*Lutjanus monostigma*’ (Geraghty pp.152–153), PPn **sawane* ‘*Lutjanus kasmira*, blue-lined sea perch’ and PPn **tanaqu* ‘*Lutjanus* spp. including *L. vaigiensis* [*L. fulvus*] and probably other yellow or yellow-red species’ (Hooper pp.210–211 and A. Hooper & Huntsman (1991:120).

PPn **palu* is included here with supporting evidence as an unusual case. Hooper and Huntsman (1991:119–127) write that in Polynesia the two fishes which are associated most strongly with the name *palu* are unrelated: the oilfish *Ruvettus pretiosus* and the deep sea snappers (ruby snapper *Etelis carbunculus*, flower snapper *Pristipomoides zonatus*, big-eyed snapper *Pristipomoides argyrogrammicus*, and the small-toothed jobfish *Aphareus furca*). These fishes share deep water habitats, being caught at depths of 200 metres or more by handline fishing, with the long line carrying a series of spaced hooks. The technique requires great strength and skill, and Hooper quotes Roger Green as believing that it was probably a late Samoic-Outlier innovation, depending as it does on suitable deepwater environments where the fish can be found, calm water, adequate tackle and appropriate ocean-going canoe skills. We have no evidence that POc speakers fished at this depth. See §56 for Gempylidae, snake mackerels, oilfish.

PPn **palu* ‘oilfish; deep-sea snapper’ (Hooper: ‘*Ruvettus pretiosus*, oilfish’)

Pn:	Tongan	<i>palu</i>	‘k.o. fish’
Pn:	Niuean	<i>palu</i>	‘generic for a number of fish spp., mainly snapper and jobfish’ (many compounds with <i>palu</i> as first element)
		<i>palu tēh</i>	‘ <i>Ruvettus pretiosus</i> , castor oil fish’ (lit. younger sibling of <i>palu</i>)
Pn:	Niuatoputapu	<i>palu</i>	‘deep sea snapper’
Pn:	Pukapukan	<i>palu</i>	‘ <i>Ruvettus pretiosus</i> ; also first element in terms for a number of mainly deep-sea fish spp. including snapper and jobfish’
Pn:	Samoan	<i>palu</i>	‘k.o. fish, <i>Aphareus</i> , up to a metre long’ (jobfish)
Pn:	Tokelauan	<i>palu</i>	‘ <i>Ruvettus pretiosus</i> ’ (oilfish)
Pn:	K’marangi	<i>palu</i>	‘ <i>Aphareus</i> ’
Pn:	Tikopia	<i>paru</i>	‘several kinds of large sea fish of reddish colour, including golden-lined sea perch and snapper’

31 Monocle breams, threadfin breams, sea breams, butterfly breams (Nemipteridae)

Most are brilliantly coloured, inhabiting sand and rubble areas around reefs. The flesh is of good flavour (Munro p.308). One weakly supported reconstruction is proposed.

POc **marotV* ‘*Nemipterus* spp.’

Adm:	Titan	<i>maros</i>	‘ <i>Nemipterus</i> spp., butterfly bream’
MM:	Nehan	<i>marot</i>	‘two-lined monocle bream; silver biddy’

32 Threadfins (Polynemidae)

These are a small family frequenting sandy shores and muddy estuaries, and at times, coral reefs. They are known chiefly for the free filaments in the pectoral fin, a feature which is reflected in its name as a reduplicated term for ‘beard’. They also have a projecting snout and large adipose eyelids, which reflect adaptation to muddy environments where sense of touch compensates for loss of vision. The flesh has excellent flavour and texture (Munro p.189).

Our only reconstruction is at PPn level, PPn **kumi-kumia* ‘*Polydactylus sexfilis*, *P. plebeius*: threadfin’ (from POc **kumi* ‘beard’ (Hooper p.204). Hooper notes that the Tokelauan word for *P. sexfilis* is *ava-ava*, also meaning ‘beard’.

Misima (PT) has a term *kum-kum* ‘generic for damselfish, *Chromis* spp. and others’, considered a chance resemblance.

33 Mojarras, silver biddies (Gerreidae)

The mojarras are small silvery fish with very protractile jaws, superficially resembling pouters (Leiognathidae). They move in large schools, mostly along sandy shores (Munro p.331).

PROc **matu* ‘*Gerres* spp., silver biddy’

NCal:	Iaai	(o)mök	‘ <i>Gerres</i> sp.’
Mic:	Marshallese	<i>mec-mec</i>	‘ <i>Lethrinus microdon</i> , snapper’

PCP **matu* ‘*Gerres*’ (Geraghty)

Fij:	Rotuman	<i>mafu</i>	‘k.o. fish’
Fij:	Wayan	<i>matu</i>	‘ <i>Gerres</i> spp.’
Fij:	Bauan	<i>matu</i>	‘ <i>Gerridae</i> ’

PPn **matu* ‘*Gerres* spp., mojarras’ (Hooper)

Pn:	Tongan	<i>matu</i>	‘k.o. fish like a silver bream’
Pn:	Samoan	<i>matu</i>	‘ <i>Gerres</i> sp., when about 15 cm long’
Pn:	W Uvean	<i>matu</i>	‘ <i>Gerres</i> sp.’

34 Sweetlips, javelinfishes (Haemulidae, formerly Plectorhynchidae and Pomadasyidae)

These moderate-sized fish inhabit coastal waters around coral reefs. Some, particularly the juveniles, are strikingly marked and brightly coloured, but colour pattern varies greatly with age. The flesh flavour is good (Munro p.315).

Some of the following forms attributed to POc **(k,q)umutuR* show loss of the first syllable. The only languages which disambiguate **k-* from **q-* are Nakanai, where **k* is reflected and Wayan, where **q* is reflected. The Gela term is apparently borrowed from a Northwest Solomonian language as it retains final consonant with echo vowel.

POc **(k,q)umutuR* ‘*Plectorhinchus* spp., sweetlips’

Adm:	Penchal	<i>kumut</i>	‘ <i>Plectorhinchus</i> spp.’
Adm:	Lenkau	<i>kumut</i>	‘ <i>Plectorhinchus</i> spp.’
Adm:	Lou	<i>kumut</i>	‘ <i>Plectorhinchus</i> spp.’
Adm:	Titan	<i>kamot</i>	‘Pomadasyidae, sweet lip (generic)’
Adm:	Nali	<i>komwet</i>	‘ <i>Plectorhinchus</i> spp.’
NNG:	Mutu	<i>umut</i>	‘ <i>Plectorhinchus</i> spp.’
NNG:	Kove	<i>mutur(ijo)</i>	‘ <i>P. chaetodonoides</i> , harlequin sweetlip’
MM:	Patpatar	<i>a-umut</i>	‘many kinds spotted sweetlips’ (<i>a</i> ARTICLE)
MM:	Nakanai	<i>kumu</i>	‘demoiselle’
MM:	Nehan	<i>mutur</i>	‘sweetlip’
SES:	Gela	<i>kometulu</i>	‘ <i>Plectorhinchus</i> spp.’
SES:	Lau	<i>mumu</i>	‘ <i>Plectorhinchus</i> spp., sweetlip’ (for † <i>?umu</i>)
Fij:	Wayan	<i>umotu</i>	‘ <i>P. flavomaculatus</i> ’

POc **lau* ‘*Plectorhinchus* spp., banded sweetlips’

Adm:	Lenkau	<i>lou</i>	‘ <i>Plectorhinchus</i> spp.’
Adm:	Lou	<i>lo</i>	‘sweetlip’
Adm:	Loniu	<i>low</i>	‘sweetlip or sea bream’
NNG:	Manam	<i>lau</i>	‘banded sweetlip’

cf. also:

Adm:	Titan	<i>loloji</i>	‘ <i>Plectorhinchus</i> spp.’
NCV:	NE Ambae	<i>lulu(kala)</i>	‘oriental sweetlip’

35 Grunters, terapon perches (Teraponidae)

Teraponidae are small Indo-Pacific fish occurring in shallow tidal, brackish or fresh water. Species differ greatly in proportions and colour, some plain and others conspicuously banded. Some species make grunting noises (Munro p.320).

There is a PPn reconstruction, **kawa-kawa* ‘*Terapon jarbua*, crescent perch’, based on Niuatoputapu and E Uvean *kava-kava*, Samoan *?ava-?ava*, all ‘*Terapon jarbua*’, but none for a higher order interstage. POc **kawa-kawa* ‘rock cod, grouper’ (§22) is considered unrelated.

36 Emperors and large-eyed breams (Lethrinidae)

Emperors inhabit shallow coastal waters around rocky outcrops and coral reefs, moving in schools. Most are fairly brightly coloured in shades of red and green. Their flesh is excellent (Munro p.324). Four genera are identified, *Lethrinus*, *Gnathodentex*, *Gymnocranius* and *Monotaxis*. We have seven POC reconstructions, but in a number of instances their reflexes have come to be applied to different referents in daughter languages. In such cases reconstructions are simply labelled Lethrinidae or *Lethrinus* spp.

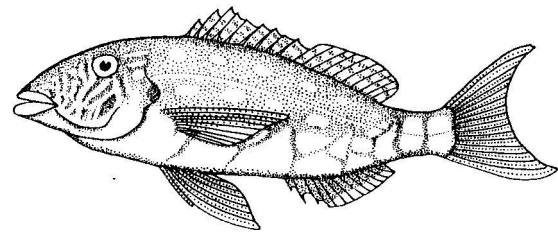


Figure 2.18 *Lethrinus variegatus*, variegated emperor

In the following set there has been confusion with reflexes of POC **(k,q)ulapi* ‘parrotfish’ (§47) in Tokelauan.

PMP **kulambar* ‘*Gnathodentex*, *Scolopsis*’ (Blust 2002: PWMP)

POC **kulabo* ‘Lethrinidae’

Adm:	Lenkau	<i>kulom</i>	‘Lethrinidae, emperor’
Adm:	Lou	<i>kulom</i>	‘ <i>Monotaxis grandoculis</i> , hump-nose sea bream’
Adm:	Titan	<i>kulap</i>	‘Lethrinidae, sea bream’
Fij:	Lau	<i>kulabo</i>	‘Lethrinidae sp.’

PPn **kulapo* ‘fish sp.’ (Hooper)

Pn:	Tongan	<i>kulapō</i>	‘k.o. fish’
Pn:	Niuean	<i>kulapu</i>	‘ <i>Paracaesio</i> sp., k.o. snapper’
Pn:	E Uvean	<i>kulapo</i>	‘ <i>Lethrinus nematacanthus</i> , threadfin emperor’ [<i>L. genivittatus</i>]
Pn:	Tokelauan	<i>kulapo</i>	‘ <i>Scarus harid</i> , juvenile’ [<i>Hipposcarus harid</i>]

cf. also:

Fij:	Rotuman	<i>ulapu</i>	‘k.o. fish’ (Ø- for †ʔ-)
Pn:	Samoan	<i>ulapo</i>	‘lighter coloured species of genus <i>Scarus</i> (parrotfish) when about 15 cm long’ (Ø-for †ʔ-)

Western Oceanic reflexes in the next set show unexpected loss of final syllable.

POC **kasika* ‘large emperor, *Lethrinus* sp.’

Adm:	Titan	<i>kasi</i>	‘ <i>L. miniatus</i> ²¹ ’
Adm:	Andra	<i>kasi</i>	‘emperor, five <i>Lethrinus</i> spp.’
PT:	Sinaugoro	<i>ari</i>	‘a reef fish’
PT:	Motu	<i>adia</i>	‘ <i>Aprion virescens</i> , green jobfish, <i>Lethrinus microdon</i> , small-tooth emperor’ (Oram)

²¹ *Lethrinus miniatus* is the trumpet emperor, a different fish from *L. olivaceus*, the long-nosed emperor, albeit one with which it is often confused. *L. elongatus* is a synonym for *L. olivaceus*, ‘long-nosed emperor’ [*Lethrinus miniatus* or *L. olivaceus*?].

MM:	Teop	<i>ahi-ahi</i>	‘ <i>Lethrinella miniata</i> , long-nosed emperor’ [<i>Lethrinus miniatus</i> or <i>L. olivaceus</i>]
SES:	Kahua	<i>yasiya</i>	‘ <i>L. elongatus</i> ’ [<i>L. olivaceus</i>]
NCV:	Mwotlap	<i>na-wawsi</i>	‘ <i>L. harak</i> ’ [thumbprint emperor]
NCV:	Dorig	<i>wawsiy</i>	‘ <i>L. harak</i> ’
Mic:	Mokilese	<i>katek</i>	‘k.o. emperor’
Mic:	Satawalese	<i>yætik</i>	‘ <i>Lethrinus</i> sp.’
Fij:	Rotuman	<i>ʔasiʔa</i>	‘snapper’
Fij:	Wayan	<i>kaðika</i>	‘ <i>L. variegatus</i> ’

POc **surup* ‘*Lethrinus* spp.’

MM:	Tolai	<i>urup</i>	‘k.o. large fish’
MM:	Lihir	<i>curu(bian)</i>	‘ <i>Lethrinus harak</i> ’
SES:	Gela	<i>huru</i>	‘k.o. fish with scarlet splashes on fins, head and snout’ (Fox); ‘ <i>Lethrinus harak</i> and <i>L. obsoletus</i> ’ (Foale)
SES:	Lau	<i>suru</i>	‘small sp. of reef fish (Lethrinidae); generic for Lethrinidae? (Akimichi)’
SES:	Kwaio	<i>sulu</i>	‘k.o. fish used in ritual’
SES:	Longgu	<i>suru</i>	‘ <i>L. elongatus</i> , long-nosed emperor’ [<i>L. olivaceus</i>]
SES:	To’aba’ita	<i>suru (k^watoa)</i>	‘ <i>L. elongatus</i> ’ (<i>suru</i> generic; <i>k^watoa</i> ‘digging stick’). The shape of <i>L. elongatus</i> is distinctive and the specific names often refer to the pointed snout.)
SES:	’Are’are	<i>suru (horau)</i>	‘ <i>L. elongatus</i> ’ [<i>L. olivaceus</i>]
SES:	Ulawa	<i>suru (wotola)</i>	‘ <i>L. elongatus</i> ’ [<i>L. olivaceus</i>]

Despite their similarity to items reflecting POc **surup*, members of the set below apparently reflect a separate etymon, since the sound correspondences of the two sets cannot be reconciled.

POc **susul* ‘*Lethrinus* spp.’

NNG:	Lukep (Pono)	<i>susul</i>	‘emperor’
NNG:	Mutu	<i>sul(ɣab)</i>	‘ <i>Lethrinus variegatus</i> , variegated emperor’
		<i>sul(xil)</i>	‘ <i>L. elongatus</i> [<i>L. olivaceus</i>], <i>L. ramak</i> [<i>L. obsoletus</i>], <i>L. nematacanthus</i> [<i>L. genivittatus</i>]’
NCV:	Vera’a	<i>(wu)sul̥</i>	‘ <i>L. harak</i> ’ ²²
NCV:	Dorig	<i>(w)sol</i>	‘ <i>L. miniatus</i> ’
NCV:	Lakon	<i>(wo)hol</i>	‘ <i>L. miniatus</i> ’
NCV:	Uripiv	<i>no-jil</i>	‘emperor’
NCV:	S Efate	<i>n-sul</i>	‘emperor’
SV:	Anejoñ	<i>ni-θiθ</i>	‘ <i>L. mahsena</i> ’
NCal:	Nemi	<i>diruk</i>	‘ <i>L. miniatus</i> ’
NCal:	Nyelây	<i>diru</i>	‘ <i>L. miniatus</i> ’

²² NCV items are due to John Lynch (pers. comm.)

Fij:	Wayan	<i>đuđu</i>	‘ <i>L. variegatus</i> ’
cf. also:			
Mic:	Carolinian	<i>ulu-ul</i>	‘ <i>L. elongatus</i> , long-nosed emperor’ [<i>L. olivaceus</i>]

POc *[oka]oka ‘k.o. fish, possibly *Lethrinus* spp. (ACD)

PT:	Bwaidoga	<i>oka</i>	‘fish sp.’
MM:	Tolai	<i>ok</i>	‘fish sp.’
Mic:	Kiribati	<i>oka-oka</i>	‘reef fish, scavenger fish, <i>Lethrinus obsoletus</i> ’
Pn:	K’marangi	<i>oko-oko</i>	‘scavenger fish, <i>Lethrinus miniatus</i> ’

POc *koran ‘emperor, Lethrinidae’

Adm:	Titan	<i>kolan</i>	‘emperor, Lethrinidae’
Adm:	Nali	<i>kolan</i>	‘emperor, Lethrinidae’
Adm:	Loni	<i>walan</i>	‘emperor sp.’
Adm:	Andra	<i>olen</i>	‘ <i>Lethrinus semicinctus</i> , reticulated emperor’
MM:	Marovo	<i>kora-korana</i>	‘small emperor’

It is possible that the items in the set below are related to those above through a borrowing in early Oceanic.

POc *kawaŋo ‘k.o. fish, probably *Lethrinus* sp.’

MM:	Nehan	<i>aŋ-uŋ</i> ²³	
SES:	Lau	<i>ʔak^waŋo</i>	‘k.o. large fish’
SES:	Sa’a	<i>awaŋo</i>	‘k.o. fish eaten only by older men’ (Ø- for †ʔ-)

PCP *kawaŋo ‘*Lethrinus nebulosus*’ (Geraghty)

Fij:	Wayan	<i>kawaŋo</i>	‘ <i>L. nebulosus</i> , spangled emperor’
Pn:	Tongan	<i>koŋo</i>	‘k.o. fish like snapper, but bluish in colour’
Pn:	E Uvean	<i>kuŋo</i>	‘ <i>L. xanthocheilus</i> , yellowlip emperor’

PEOc *n(u,o)sa ‘*Lethrinus* sp.’

SES:	Kahua	<i>nuta</i>	‘ <i>L. miniatus</i> ’
NCV:	NE Ambae	<i>noha</i>	‘ <i>Lethrinus</i> spp.’

Also reconstructed are PCP *ŋujula ‘*Lethrinus elongatus*’, PCP *kabatiko ‘*Lethrinus* sp.’, and PCP *(m,b)ũ, PPn *mũ ‘*Monotaxis grandoculis*, large-eyed sea bream’ (Geraghty p.153, Hooper p.212). POc *sabutu ‘*Lutjanus* or *Lethrinus* sp.’ has also been reconstructed (see cognate set in §30)

²³ Nehan *aŋ-uŋ* is a reduplicated reflex. As POc *w is lost in NW Solomonian languages, I infer that -uŋ reflects an earlier interstage *kuaŋo ‘emperor’.

37 Goatfishes (Mullidae)

The Mullidae have large scales and two barbels at the chin. Small to moderate in size and usually red or gold, they are bottom-dwellers, often occurring in large schools (Munro p.334). Genera include *Mulloidichthys*, *Parupeneus*, *Upeneus* and *Pseudupeneus*. Both in Andra (Adm) (McEl-downey 1995) and Kapingamarangi (Pn) (Lieber 1994), goatfish are reported as particularly numerous in stone fishtrap catches. Most species are considered good eating. We have five POc reconstructions, one of which is traceable with consistent referent back to PAn, and one which probably refers to a growth stage.

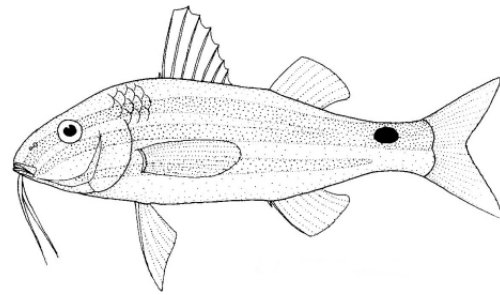


Figure 2.19 *Parupeneus signatus*, black-spotted goatfish

PAn **Ciqaw* ‘goatfish’ (Zorc 1994, Blust 2002)

PMP **tiqaw* ‘goatfish’ (ACD)

POc **tiqo* ‘goatfish sp. or spp.’

Adm:	Loniu	<i>tiw</i>	‘goatfish sp.’
Adm:	Seimat	<i>tio-ti</i>	‘barbelled fish four to five feet in length’
NNG:	Gedaged	<i>tik</i>	‘k.o. goatfish’ (Mueller 1985)
NNG:	Bing	<i>tiy</i>	‘goatfish, commonly found in shallow waters and bays’
PT:	Motu	<i>sio</i>	‘ <i>Parupeneus</i> spp.’ (Oram n.d.)
PT:	Roro	<i>sio</i>	‘k.o. fish’
PT:	Gumawana	<i>siwo-siwo</i>	‘goatfish’
MM:	Nehan	<i>tio</i>	‘k.o. goatfish’
MM:	Teop	<i>sio</i>	‘ <i>Parupeneus</i> spp.’
SES:	Gela	<i>tio</i>	‘ <i>Parupeneus</i> spp.’
SES:	Arosi	<i>si?o</i>	‘k.o. fish with barbels’ (for † <i>sio</i>)
NCV:	Mota	<i>tio</i>	‘k.o. fish with barbels’
NCV:	Mwotlap	<i>ti</i>	‘ <i>Mulloidichthys flavolineatus</i> , yellowstripe goatfish’
NCV:	Raga	<i>sio</i>	‘ <i>M. flavolineatus</i> ’
Mic:	Kiribati	<i>tewe</i>	‘k.o. barbelled fish, goatfish’ ²⁴
Mic:	Marshallese	<i>co</i>	‘ <i>Parupeneus barberinus</i> , goatfish’
Mic:	Mokilese	<i>ce</i>	‘k.o. goatfish’
Mic:	Carolinian	<i>sōw</i>	‘lagoon fish, perhaps goatfish’
Mic:	Woleaian	<i>sōwe</i>	‘k.o. fish’

PCP **teu* ‘k.o. goatfish’ (Geraghty 2010)

Fij:	Nadroga	<i>seu</i>	‘goatfish’
Fij:	Bauan	<i>deu</i>	‘goatfish’

²⁴ Bender et al. reconstruct PCMic **tawu* ‘a fish’, but add ‘the WOL and KIR forms are incompatible and probably both do not belong in this set’.

PPn **wete* ‘k.o. goatfish, including *Mulloidichthys*’ (Geraghty 2010)²⁵

Pn:	Tongan	<i>vete</i>	‘goatfish, ‘ <i>Mulloidichthys</i> ’
Pn:	Rennellese	<i>bete</i>	‘goatfish’
Pn:	Tikopia	<i>vete</i>	‘goatfish’
Pn:	Hawaiian	<i>weke</i>	‘ <i>Mulloidichthys</i> sp.’

POc **m^wacasi* ‘goatfish’²⁶

Adm:	Lou	<i>m^warase</i>	‘goatfish’
Adm:	Nali	<i>m^walasei</i>	‘goatfish’
Adm:	Loniu	<i>m^wasas</i>	‘goatfish sp.’ (-s- for †-ʔ-)
Adm:	Penchal	<i>m^waracei</i>	‘goatfish’ (Akimichi) (-r- for †-l-)
Adm:	Lenkau	<i>m^wasei</i>	‘goatfish’ (-θ- for †-h-)
MM:	Lihir	<i>mawis</i>	‘ <i>Parapeneus bifasciatus</i> , doublebar goatfish’ [<i>P. trifasciatus</i>] (-w- for †-s-)
MM:	Nehan	<i>maheh</i>	‘goatfish’
SES:	’Are’are	<i>matasi</i>	‘mullet fish’ (goatfish are sometimes known as red mullet)
SES:	Lau	<i>matasi</i>	‘goatfish (generic)’
SES:	Sa’a	<i>matasi</i>	‘small shore fish’
NCV:	Vera’a	<i>m^wasa</i>	‘ <i>M. flavolineatus</i> , yellow-stripe goatfish’
NCV:	Lakon	<i>m^wah</i>	‘ <i>M. flavolineatus</i> ’
Mic:	Kiribati	<i>māwa</i>	‘goatfish’

PCP **ŋ^waðaði* ‘*Parupeneus* sp.’ (Geraghty)

Fij:	Rotuman	<i>vasasi</i>	‘fish with small eyes and two beard-like antennae under its mouth’
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POc **sua-sua* ‘goatfish’

NNG:	Manam	<i>sua-sua</i>	‘goatfish, catfish’
MM:	Marovo	<i>sua(ra)</i>	‘generic for goatfish’
NCV:	S Efate	<i>sus</i>	‘goatfish’
SV:	Kwamera	<i>(ie)su</i>	‘goatfish’
NCal:	Iaai	<i>(wa)si</i>	‘ <i>M. flavolineatus</i> ’
Fij:	Wayan	<i>ðū-ðū</i>	‘ <i>Parapeneus</i> spp., goatfish’

The PPn reconstruction in the next set appears to be an old compound, but the meaning of **-ama* is unknown.

²⁵ Geraghty (2010) argues that PPn **wete* may be a regular reflex of PCP **teu* involving the following changes: (i) lowering of the final vowel to **o*, (ii) breaking of the vowel *o* as *we*, and (iii) metathesis to **wete*. He has tracked the same series of changes in PCP **deu* ‘unravel’ > PPn **wete* ‘untie’.

²⁶ Admiralties terms apparently reflect Proto Admiralty **m^wacasei* with some irregularities. Most other items reflect POc **m^wacasi*.

POc **kalo* ‘growth stage of goatfish’

Adm:	Andra	<i>kale-el</i>	‘ <i>Upeneus</i> , goatfish’ (unexplained vowels)
MM:	Nakanai	<i>kalo-kalo</i>	‘little fish’
Pn:	Tuvalu	<i>kalo</i>	‘ <i>Mulloidides auriflamma</i> ’ (golden-banded goatfish) [<i>Mulloidichthys vanicolensis</i>]

PPn **kaloama* ‘growth stage of goatfish’ (Hooper)

Pn:	Tongan	<i>kaloama</i>	‘young goatfish’
Pn:	Niuean	<i>kaloama</i>	‘yellowstripe goatfish’
Pn:	Niutoputapu	<i>kaloama</i>	‘middle growth stage of goatfish’ (<i>tūsia</i> ?)
Pn:	Pukapukan	<i>kalōma</i>	‘young goatfish’
Pn:	Samoaan	<i>ʔaloama</i>	‘k.o. fish’
Pn:	Tikopia	<i>karoama</i>	‘small stage of goatfish’

The zero reflex of initial **s-* in the Ponapean, Mokilese and Lau Fijian reflexes below suggests that they are borrowings from a Polynesian language.

POc **sapulu* ‘goatfish spp.’

PT:	Motu	<i>dahuru</i>	‘k.o. fish’ (- <i>r-</i> for †- <i>l-</i>)
Mic:	Ponapean	<i>epil</i>	‘ <i>M. vanicolensis</i> , yellowfin goatfish’
Mic:	Mokilese	<i>ɔpil</i>	‘goatfish’
Fij:	Lau	<i>yavulu</i>	‘ <i>Mulloidichthys vanicolensis</i> ’

PPn **hafulu* ‘growth stage of goatfish’ (Hooper: ‘goatfish, most likely *Parupeneus* and *Upeneus* spp.’)

Pn:	Niuean	<i>hafulu</i>	‘goatfish’
Pn:	Samoaan	<i>afulu</i>	‘ <i>M. vanicolensis</i> , juvenile’
Pn:	Tuvalu	<i>afulu</i>	‘yellow-banded goatfish’
Pn:	Tikopia	<i>afuru</i>	‘goatfish, larger stage of <i>vete</i> ’
Pn:	Tahitian	<i>ahuru</i>	‘goatfish spp.’
Pn:	Hawaiian	<i>ʔāhulu-hulu</i>	‘ <i>Upeneus porphyreus</i> , juvenile’

cf. also:

MM:	Marovo	<i>ululo</i>	‘ <i>Parupeneus</i> spp., small types’
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PWOC **p^wi(r,R)itu(r,R,s)* ‘k.o. goatfish’

NNG:	Lukep (Pono)	<i>biritou</i>	‘k.o. fish’
PT:	Misima	<i>pilihul</i>	‘generic for goatfishes, <i>Mulloidichthys</i> spp., <i>Parupeneus</i> spp., <i>Upeneus</i> spp.’
MM:	Patpatar	<i>birite</i>	‘ <i>Parupeneus janseni</i> , rosy goatfish’

Also reconstructed are Proto North Vanuatu **tanitani* ‘goatfish’ (François 2005:500), PCP **oje* ‘Mullidae’ and PCP **matu-xurau* ‘*Parupeneus* sp.’ (Geraghty p.154). Hooper (p.214) lists PPn **memea* ‘*Mulloidides* sp., goatfish’ (*mea* ‘reddish’), **malili* ‘goatfish taxon’ and PNPn **moaŋa* ‘*Parupeneus* spp.’.

38 Sweepers (Pempheridae)

Sweepers are a small family of nocturnal fishes that spend daylight hours in caves and crevices of the reef. They sometimes form large aggregations which disperse after dusk and feed on zooplankton during the night (Allen & Swainston 1993:58). They are dusky silver or bright red, most with very large eyes (Munro p.349).

No POC reconstruction has been made. A lower level reconstruction includes PCP **manivi* ‘*Pempheris* sp.’ (Geraghty p.155), PPn **manifi* ‘*Pempheris oualensis*’ (Hooper p.213) (cf. POC **manipis* ‘thin’ – vol.2, p.202).

39 Drummers, rudderfishes (Kyphosidae)

Drummers or rudderfishes are a small family. Fishes are typically small, finely and closely scaled, and dull in colour. Most species are pelagic, often found under floating medusae. They are herbivorous fish, feeding chiefly on algae and seaweed. The flesh is regarded as edible but of poor quality (Munro p.352).

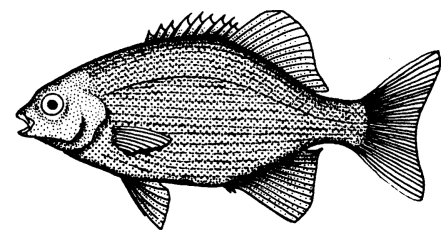


Figure 2.20 *Kyphosus cinerascens*, ashen drummer

POC **maka(o,u)r* ‘Kyphosidae, drummer’

Adm:	Titan	<i>makao</i>	‘Kyphosidae’
Adm:	Penchal	<i>makau</i>	‘drummer’
Adm:	Nali	<i>makao</i>	‘drummer’
NNG:	Kove	<i>makau</i>	‘k.o. fish’
MM:	Nakanai	<i>makau</i>	‘bream-like fish’
NCV:	S Efate	<i>(wak)makur</i>	‘Kyphosidae’ (<i>wak</i> ‘pig’)

In the next set, PPn **ranue* is proposed rather than **nanue*. This would have become *anue* in Pre-Tongic (where *r* > Ø), with later loss of initial *a*-. In PNPn **ranue* > **lanue* by regular sound change, then **nanue* by assimilation.

PROc **r(a,e)nu(a,e)* ‘*Kyphosus*, rudderfish’

Mic:	Marshallese	<i>rænna</i>	‘ <i>Kyphosus vaigiensis</i> , Waigeu drummer’
Mic:	Carolinian	<i>rēl</i>	‘rudderfish’
Mic:	Satawalese	<i>rōn</i>	‘ <i>Kyphosus</i> spp., drummer’

PCP **r(a,e)nu(a,e)* ‘*Kyphosus*’ (Geraghty)

Fij:	Lau	<i>rēnua</i>	‘ <i>Kyphosus</i> ’
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PPn **ranue* ‘Kyphosidae’

Pn:	Tongan	<i>nue</i>	‘k.o. fish’
Pn:	Niuean	<i>nue</i>	‘rudderfish or drummer, <i>Kyphosus</i> sp.’
Pn:	E Uvean	<i>nue</i>	‘ <i>Kyphosus vaigiensis</i> ’ (possibly loan from Tongan)
Pn:	Pukapukan	<i>nanue</i>	‘ <i>Kyphosus</i> sp.’
Pn:	Samoaan	<i>nanue</i>	‘ <i>Kyphosus</i> sp.’
Pn:	Tokelauan	<i>nanue</i>	‘ <i>K. cinerascens</i> , ashen drummer’

Pn:	Tikopia	<i>nanue</i>	‘ <i>K. cinerascens</i> ’
Pn:	Tahitian	<i>nanue</i>	‘ <i>Kyphosus</i> sp.’
Pn:	Hawaiian	<i>nanue, nenue</i>	‘rudder or pilotfish’

40 Silver batfishes, diamondfishes (Monodactylidae)

These are small, deep-bodied, compressed fishes, distinguished by their diamond shape and silvery colour and superficially resembling the juveniles of batfishes. They inhabit shallow coastal waters, preferring brackish water and sometimes penetrating into fresh water (Munro p.348). No widespread cognate sets have been found.

41 Batfishes (Ehippidae (formerly Platacidae))

Allen & Swainston (1993:58) describe the batfishes of the genus *Platax* as among the most graceful of coral reef fishes. They are characterised by long, flowing fins, particularly in their juvenile and sub-adult stages. Adults have almost round bodies. Young ones resemble a leaf in colour and can sink inertly through the water, becoming difficult to see. Batfish are often extremely tame and curious. They are found both on sheltered inshore reefs and on outer slopes.

PMP **buna* ‘batfish’ (Blust 2002)

POc **bunaR* ‘batfish, *Platax* sp. or spp., possibly *Naso* sp. or spp.’²⁷

Adm:	Seimat	<i>pun</i>	‘large flat white pelagic fish’
Adm:	Aua	<i>puna</i>	‘large flat fish sp.’
Adm:	Andra	<i>(ku)punu-pun</i>	‘ <i>Platax</i> ’ (irregular vowel)
NNG:	Mutu	<i>bunar</i>	‘ <i>Platax</i> spp.’
NNG:	Kove	<i>buna-buna</i>	‘batfish’
PT:	Gumawana	<i>bunali</i>	‘batfish’
PT:	Motu	<i>buna</i>	‘ <i>Psenes arafurensis</i> , eyebrowfish’ (Oram)
MM:	Nehan	<i>bunar</i>	‘ <i>Platax teira</i> , round-faced batfish’
MM:	Teop	<i>burara</i>	‘batfish (generic)’ (-r- for †-n-: consonant assimilation)
TM:	Buma	<i>bunero</i>	‘batfish, <i>Platax</i> sp.’
Mic:	Mokilese	<i>p^wūn</i>	‘batfish’
Pn:	Rennellese	<i>puna</i>	‘general name for Moorish idols, batfish and some high, flat coral fish with extended fins’
Fij:	Wayan	<i>vuna-vuna</i>	‘juvenile phase of seabat or angelfish, <i>Platax pinnatus</i> ’ (for † <i>buna</i>)

²⁷ Disambiguated from POc **buna(r;R)* by evidence from Palauan *bils* and Pendau *bunag* (R. Blust pers. comm.)

42 Butterflyfishes, coralfishes (Chaetodontidae)

Butterflyfish are among the most readily recognised of coral reef fishes due to their graceful shapes and wide range of brilliant colour patterns. Colours are usually combinations of black, red, orange, yellow and white. The fishes are diurnal and some species are extremely territorial, inhabiting one or more heads of plate coral. At dusk they retreat to reef crevices where they remain motionless until dawn (Allen & Swainston 1993:60).

Both Hooper (p.188) and Hviding (1996:192) have commented on the fact that in Oceanic languages butterflyfish, coralfish and angelfish are sometimes lumped together under one generic term, although angelfish belong in a separate family, Pomacanthidae. Chaetodontidae are of little value for food, and there is apparently little point in distinguishing species or growth stages. I have two POC reconstructions, which presumably contrasted in meaning, but reflexes of both **bebek* and **tipi-tipi* have in some languages been used as the generic form for butterflyfish, coralfish, and perhaps others, and I have been unable to differentiate between their meanings. Although the final **-k* of *bebek* is not supported by the evidence given here, there can be no doubt that the same word in POC referred to both ‘butterfly’ and ‘butterflyfish’.

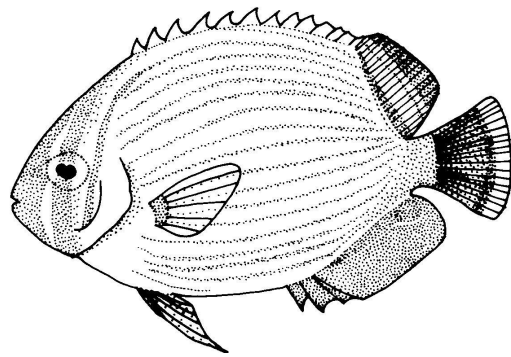


Figure 2.21 *Chaetodon* sp., coralfish

POC **bebek* ‘generic for Chaetodontidae, coralfish and butterflyfish’ (also ‘butterfly’; ch.7, §3)

Adm:	Penchal	<i>p^wep</i>	‘Chaetodontidae, coralfish’
Adm:	Nali	<i>pep</i>	‘Chaetodontidae, coralfish’
PT:	Motu	<i>bebe</i>	‘ <i>Chaetodon</i> spp.’ (Oram n.d.) (<i>kau-bebe</i> ‘butterfly’)
MM:	Bola	<i>bebe</i>	‘butterflyfish’
MM:	Nakanai	<i>bebe(o)</i>	‘k.o. fish’ (<i>bebe</i> ‘butterfly’)
SES:	Kwaio	<i>bebe</i>	‘tropical reef fish, including several species such as Moorish idol’
SES:	Lau	<i>bebe</i>	‘generic for coralfish, <i>Chaetodon</i> ; butterfly’
NCV:	Mwotlap	<i>bem</i>	‘ <i>Chaetodon lineolatus</i> , lined butterflyfish’
NCV:	Lakon	<i>pep</i>	‘ <i>Chaetodon</i> (generic)’
Mic:	Kiribati	<i>(i)p^wa-p^wa</i>	‘generic for coralfish, butterflyfish and some batfish’

POC **tipi-tipi* ‘Chaetodontidae’

MM:	Teop	<i>(ke)tepe-tepe</i>	‘coralfish (generic)’
NCV:	Mota	<i>tivi-tivi</i>	‘ <i>Chaetodon</i> ’
NCV:	Dorig	<i>tiv-tiv</i>	‘ <i>Chaetodon</i> spp.’

PCP **tivi-tivi* ‘*Chaetodon* spp.’ (Geraghty)

Fij:	Wayan	<i>tivi-tivi</i>	‘butterflyfish (generic)’
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PPn **tifi-tifi* 'butterflyfish (generic)' (Hooper)

Pn:	Niuean	<i>tifi-tifi</i>	' <i>Chaetodon</i> sp., butterflyfish, edible'
Pn:	Samoan	<i>tifi-tifi</i>	'general name for Chaetodontidae'
Pn:	Tikopia	<i>tifi-tifi</i>	'angelfish or butterflyfish'
Pn:	K'marangi	<i>tihi-tihi</i>	' <i>Chaetodon</i> spp., <i>Heniochus</i> spp., butterflyfishes'

43 Angelfishes (Pomacanthidae)

Angelfish are small to moderate-sized marine fish, frequenting coral reefs. They are close relatives of butterflyfish and the two families are sometimes included within the same term in local nomenclature. Like butterflyfish, they have extremely brilliant colours and complicated patterns. However, they can be distinguished by possession of a prominent cheek spine which can inflict a painful wound if handled carelessly. Some undergo astonishing changes in colour and markings with age. Larger ones are valued as food (Munro p.371).

POc **buRi-buRi* 'k.o. fish, possibly angelfish'

NNG:	Gedaged	<i>bul-bul</i>	'bluish-grey marine fish about 10 cm long'
PT:	Molima	<i>buli-buli</i>	'emperor angel fish'
SES:	Gela	<i>buli-buli</i>	'fish sp.'
NCV:	Uripiv	<i>ni-bi</i>	'angelfish, <i>Pomacanthus sexstriatus</i> '

44 Damselfishes or demoiselles, anemonefishes, sergeant-majors, pullers (Pomacentridae)

These are very active brilliant little fishes of the coral reefs, seeking shelter among branches of coral and in crevices. They are often left in tide pools. They are trim and shapely, greatly suggesting butterflyfish in mode of life. Coloration is highly variable, ranging from grey to yellow to blue. Genera include *Pomacentrus* (damselfish), *Amphiprion* (anemonefish, clownfish), *Abudefduf* (sergeant-majors) and *Chromis* (pullers), and there are dozens of species. Two POc terms are reconstructed, the second one, **taku-takun*, possibly the term for juveniles, those of many species being distinctively marked by a yellow body with bright blue stripes (Allen & Swainston 1993:74).

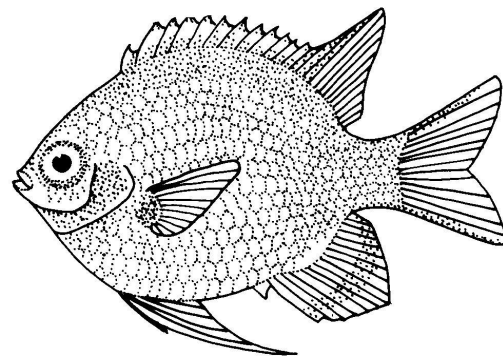


Figure 2.22 *Abudefduf* sp., sergeant-major

PMP **mutu* 'damselfish' (ACD)

POc **mutu* 'Pomacentridae, particularly *Abudefduf*'

MM:	Nakanai	<i>mutu</i>	‘k.o. fish’
MM:	Bola	<i>mutu</i>	‘k.o. fish’
SV:	Anejoñ	<i>n-m^wot(anyat)</i>	‘ <i>Abudefduf</i> sp.’
Mic:	Satawalese	<i>mmæs</i>	‘ <i>Abudefduf</i> and <i>Amblyglphidodon</i> spp., sergeant-majors’

PPn **mutu[mutu]* ‘Pomacentridae’ (Hooper)

Pn:	Tongan	<i>mutu-mutu</i>	‘k.o. fish’
Pn:	Niuean	<i>mutu-mutu</i>	‘small grey fish with dark vertical bands, also known as <i>kāmuta</i> ’
Pn:	E Uvean	<i>mutu-mutu</i>	‘ <i>Abudefduf sordidus</i> ’
Pn:	Rennellese	<i>mutu</i>	‘general name for sergeant majors and pullers (damselfish)’
Pn:	Samoaan	<i>mutu</i>	‘ <i>Abudefduf</i> sp.’
Pn:	Tikopia	<i>mutu</i>	‘Pomacentridae, coralfish, small, striped, edible’
Pn:	Anutan	<i>mutu</i>	‘Pomacentridae (generic)’
Pn:	Māori	<i>mutu-mutu</i>	‘fish prized for its delicacy’

Reflexes of POc **taku-takun*, reconstructed below, have been reduplicated in various ways. Gumawana and PPn both reflect **t(o,u)kukun*, where the first syllable, **t(o,u)-* is perhaps itself a reduction of **taku-*. Bing and Takia both reflect full reduplication after loss of **-k-*. Only Teop reflects the more usual Oceanic reduplication in **taku-takun*. Central Pacific terms show assimilation of the first vowel **a > u*.

POc **taku-takun* ‘small coral fish, damselfish or similar’

NNG:	Bing	<i>tuŋ-tuon</i>	‘sergeant-major, green and white’
NNG:	Takia	<i>doŋa-doŋ</i>	‘ <i>Pomacentrus littoralis</i> , brown demoiselle’
PT:	Gumawana	<i>tokuku</i>	‘angelfish’
MM:	Teop	<i>tagu-tagun</i>	‘angelfish (generic)’

PCP **dukuku* ‘Pomacentridae’ (Geraghty: **duku*)

Fij:	Rotuman	<i>tu-tuʔu</i>	‘small black fish’
Fij:	Kadavu	<i>duxi-duxi</i>	‘ <i>Abudefduf</i> ’

PPn **tukuku* ‘Pomacentridae’

Pn:	Tongan	<i>tukuku</i>	‘k.o. fish, very small’
Pn:	Niutoputapu	<i>tukuku (or tokuku)</i>	‘ <i>Abudefduf</i> , <i>Pomacentrus</i> and <i>Chromis</i> ’
Pn:	Pukapukan	<i>tutuku</i>	‘ <i>Dascyllus</i> spp.’
Pn:	Samoaan	<i>tuʔuʔu</i>	‘certain small queer fishes of genera <i>Abudefduf</i> , <i>Pomacentrus</i> and <i>Chromis</i> ’
Pn:	K’marangi	<i>takuku</i>	‘ <i>Abudefduf</i> sp., blue-banded damselfish’

45 Hawkfishes (Cirrhitidae)

Many Cirrhitidae are richly coloured and abundant about coral reefs and rocks. They are solitary and sedentary, frequently seen sitting on top of coral heads, from which they make quick short darts for food (Munro p.442). Two reconstructions are possible at PPn level,

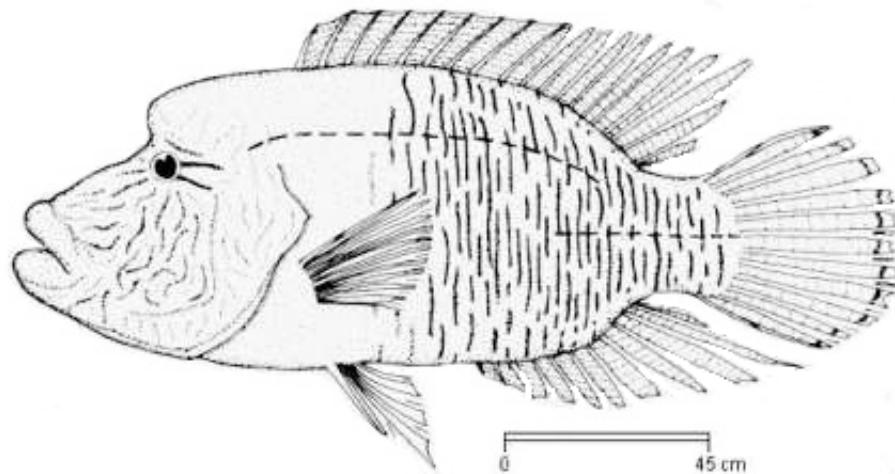


Figure 2.23 *Cheilinus undulatus*, double-headed Maori wrasse

**patuki* (Geraghty p.157) and **qulu-tuki* (Hooper p.206). Their association with **tuki* ‘to beat, pound’, is not understood.

46 Wrasses, tuskfishes (Labridae)

There are over 400 species of Labridae, falling into some 60 genera which include *Anampses*, *Bodianus*, *Cheilinus* (Maori wrasse), *Choerodon* (tuskfish), *Coris*, *Epibulus*, *Gomphosus*, *Halichoeres* and *Thalassoma*. Wrasses are brilliantly coloured, living around coral reefs and amongst weeds. Juvenile wrasses often differ from adults, and in some the sexes differ in colour and pattern. Some change colour and pattern with great rapidity (Munro pp.402, 405). They are active during daylight hours, retiring to the shelter of the reef at night. Some species, such as members of the genus *Coris*, bury themselves in the sand. Most are medium sized fishes (about 20–40 cm), but the double-headed Maori wrasse, *Cheilinus undulatus*, is notable for its size, growing to over two metres in length. Oceanic languages typically distinguish many wrasse taxa. Although I have a number of POc reconstructions, there is little consistency of reference within cognate sets, other than within Polynesia. So, although in each case the POc meaning may have been restricted to one or more species, or even to growth stages, I am obliged to reconstruct in very general terms. In the following set, the Rotuman reflex of **mamin* refers not to the Maori wrasse, but to the largest parrotfish, the hump-headed parrotfish, *Bolbometopon muricatum*, which resembles it. Although Geraghty (p.159) reconstructs PCP **mami* ‘*Bolbometopon*, hump-headed parrotfish’, he does so presumably on Rotuman evidence alone.

PMP **mamin* ‘wrasse, *Cheilinus* spp.’ (ACD)

POc **mamin* ‘*Cheilinus undulatus*, double-headed Maori wrasse and possibly other wrasse spp.’

Adm: Nali *mam* ‘*C. undulatus*’

Adm:	Titan	<i>mam</i>	‘ <i>C. undulatus</i> ’
Adm:	Loni	<i>mam</i>	‘wrasse’
NNG:	Mutu	<i>mam(lau)</i>	‘ <i>Coris aygula</i> , hump-headed wrasse; <i>C. diagrammus</i> , violet-lined Maori wrasse’ [<i>Oxycheilinus digramma</i>]
PT:	Gumawana	<i>mamina</i>	‘wrasse fish’
PT:	Kilivila	<i>mamila</i>	‘k.o. fish’
PT:	Motu	<i>mami</i>	‘various k.o. wrasse’
MM:	Lihir	<i>mamil</i>	‘ <i>Cheilinus undulatus</i> , Maori wrasse’ (-l for †-n)
MM:	Tolai	<i>mamin</i>	‘ <i>Anampses pterophthalmus</i> , ocellated chisel-tooth wrasse’ [<i>A. geographicus</i>]
MM:	Maringe	<i>mamini</i>	‘salt-water fish, incl. various wrasse, esp. <i>Cheilinus</i> sp.’
MM:	Marovo	<i>mimina</i>	‘wrasse, prob. <i>C. undulatus</i> ’
NCal:	Iaai	<i>mem</i>	‘large <i>C. undulatus</i> ’
Mic:	Chuukese	<i>māemi</i>	‘large wrasse’
Mic:	Puluwatese	<i>māem</i>	‘k.o. fish, large, perhaps wrasse’
Mic:	Carolinian	<i>māem</i>	‘ <i>C. undulatus</i> ’
Mic:	Satawalese	<i>māem</i>	‘ <i>C. undulatus</i> ’
Fij:	Rotuman	<i>mami</i>	‘ <i>Bolbometopon</i> , k.o. blue-green fish’

Both POC **mamin* and POC **taŋapa(R,r)* have reflexes which refer specifically to *Cheilinus undulatus*. It is possible that both POC terms referred to growth stages.

POC **taŋapa(R,r)* ‘large wrasse, including *Cheilinus* sp.’

Adm:	Andra	<i>draŋah</i>	‘wrasse’
Adm:	Titan	<i>draŋ</i>	‘wrasse, <i>Bodianus</i> spp.’
NNG:	Gitua	<i>taŋavaru</i>	‘k.o. fish’ (-u unexpected)
MM:	Ramoaaina	<i>taŋara</i>	‘k.o. fish’
NCV:	Vera’a	<i>ʔaŋava</i>	‘ <i>Cheilinus undulatus</i> ’

PCP **taŋava* ‘*Cheilinus undulatus*’ (Geraghty)

Fij:	Wayan	<i>tāŋava</i>	‘ <i>C. undulatus</i> ’
Fij:	Rotuman	<i>fahaŋa</i>	‘k.o. fish’ (metathesis)

PPn **taŋafa* ‘*Cheilinus* sp.’ (Hooper)

Pn:	Tongan	<i>taŋafa</i>	‘k.o. fish’
Pn:	Niuaatoputapu	<i>(meai)taŋafā</i>	‘wrasse’
Pn:	Samoan	<i>taŋafa</i>	‘name given to fishes of genus <i>Cheilinus</i> when three feet long or more’
Pn:	Tuvalu	<i>taŋafu</i>	‘ <i>C. undulatus</i> ’
Pn:	Tikopia	<i>taŋafā</i>	‘sea fish, apparently a wrasse’

POC **babu* ‘*Cheilinus* spp., Maori wrasse’

Adm:	Titan	<i>papu(niu)</i>	‘ <i>C. trilobatus</i> , tripletail Maori wrasse, medium’
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PPn **papu* ‘*Cheilinus* sp.’ (Hooper: PNPn **pap(o,u)*)

Pn:	Rennellese	<i>papu</i>	‘several kinds of dark brown wrasse’
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Pn:	Pukapukan	<i>papo</i>	‘ <i>C. fasciatus</i> ’
		<i>papo-papo</i>	‘ <i>C. fasciatus</i> , juvenile’
Pn:	Tuvalu	<i>papo</i>	‘ <i>C. trilobatus</i> ’
Pn:	Tokelauan	<i>papo</i>	‘ <i>C. fasciatus</i> ’
Pn:	Luangiua	<i>papu</i>	‘Maori wrasse’

cf. also:

NCV:	S Efate	(<i>a</i>) <i>fam</i>	‘ <i>C. undulatus</i> ’
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POc **merari* ‘wrasse or parrotfish’

NNG:	Kove	<i>lali</i>	‘parrotfish, bright blue-green fins and tail’ (irregular loss of first syllable)
NCV:	Ambae	<i>m^wera</i> (<i>mavute</i>)	‘checkerboard wrasse?’ [<i>Halichoeres hortulanus</i>] (<i>mavute</i> ‘white’) (loss of final <i>*-ri</i> unexpected)
NCV:	Mota	<i>mera</i>	‘k.o. fish’ (loss of final <i>*-ri</i> unexpected)
Mic:	Marshallese	<i>meræ</i>	‘parrotfish; wrasse’
Mic:	Ponapean	<i>merer</i>	‘wrasse’

PCP **m[e,a]rari* ‘*Novaculichthys*, wrasse’ (Geraghty)

Fij:	Rotuman	<i>marari</i>	‘smooth-bodied fish with thin soft scales, grey-brown with whitish spots’
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PPn **m[e,a]rari* ‘wrasse or parrotfish’ (Hooper: **m(a,o)lali*)

Pn:	Tongan	<i>meai</i>	‘k.o. fish like parrotfish’
Pn:	Pukapukan	<i>malali</i>	‘ <i>Cheilinus trilobatus</i> , trilobed Maori wrasse’
Pn:	Luangiua	<i>mālali</i>	‘rainbow fish, k.o. Labridae’
Pn:	Tokelauan	<i>molali</i>	‘ <i>C. trilobatus</i> ’
Pn:	K’marangi	<i>malali</i>	‘ornated wrasse’

POc **tapu* ‘Labridae sp.’

PT:	Iduna	<i>tafu-tafufu</i>	‘small coloured fish on the reef’
Mic:	Satawalese	(<i>yæ</i>) <i>sāep</i>	‘ <i>Gomphosus varius</i> , clubnosed wrasse’

PCP **tuvu* ‘Labridae sp.’ (Geraghty)²⁸

Fij:	Wayan	<i>tuvu(masi)</i>	‘scribbled wrasse’ [<i>Novaculichthys taeniourus</i>]
		<i>tuvu(keli)</i>	‘wrasse taxon’

PPn **tufu* ‘*Thalassoma* sp.’

Pn:	Tongan	<i>tufu</i>	‘ <i>Thalassoma</i> ’
Pn:	Niuean	<i>tufu</i>	‘k.o. parrotfish, edible’
Pn:	Samoan	<i>tufu</i>	‘k.o. fish’
Pn:	K’marangi	<i>tuhu</i>	‘ <i>Thalassoma</i> sp., fire wrasse’

PEOc **lapi* ‘wrasse’

SES:	Lau	(<i>mae</i>) <i>lafu</i>	‘wrasse’
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²⁸ PCP **tuvu* reflects the same assimilation of **-a-* to **-u-* as PCP **tukuku* (< POc **takuy*) (§44).

NCal:	Nyelâyü	<i>nābi</i>	‘ <i>Cheilinus undulatus</i> ’
Mic:	Kiribati	(<i>ari</i>) <i>nai</i>	‘rainbow family or wrasse’
PPn * <i>la-lafi</i> ‘wrasse or parrotfish spp.’ (Hooper)			
Pn:	Tongan	<i>la-lafi</i>	‘ <i>Scarus</i> sp.’
Pn:	E Uvean	<i>la-lafi</i>	‘ <i>Cheilinus</i> spp.’
Pn:	Pukapukan	<i>la-lawi</i>	‘ <i>C. undulatus</i> ’
Pn:	Samoan	<i>la-lafi</i>	‘ <i>Cheilinus</i> sp., under 30 cm’
Pn:	Tokelauan	<i>lalafi, lafi-lafi</i>	‘juvenile growth terms for <i>C. undulatus</i> ’
cf. also:			
NCal:	Jawe	<i>nami</i>	‘ <i>C. undulatus</i> ’

Lower-level reconstructions include PCP **labe*, PPn **lape*²⁹ ‘*Labridae*, wrasse’, PPn **sunjale* ‘*Labridae*’ and PPn **ɲutuloa* ‘*Epibulis insidiator*, slingjaw wrasse, or other long-nosed wrasse’ (*ɲutu-loa* lit. ‘long nose’) (Geraghty p.159, Hooper pp.217–218).

47 Parrotfishes (Scaridae)

Parrotfish are closely related to the wrasses, although the latter are carnivorous. Parrotfish are herbivorous, typically large, the jaws with a bony beak. They are reef dwellers, feeding chiefly on vegetable matter, but their strong beaks easily crush molluscs and coral. Most pass through one to three colour phases. Juveniles are usually plain, with mottling; immatures usually patterned with red, brown or purple, adults with blue, green, yellow, orange or red patterns (Munro p.431). Like the wrasses they retreat into holes in the coral at night to sleep. Genera include *Scarus*, *Hipposcarus* and *Bolbometopon*.

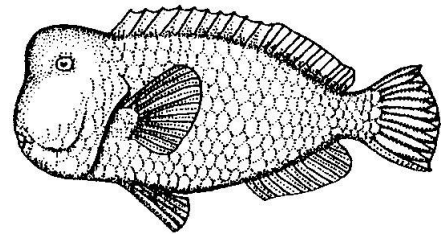


Figure 2.24 *Bolbometopon muricatum*, double-headed parrotfish

PMP *[(*k,q*)]*ulapi* ‘parrotfish’³⁰

POc *(*k,q*)*ulapi* ‘parrotfish spp., incl. *Hipposcarus longiceps*, long-nosed parrotfish’

Adm:	Lou	<i>k^wel</i>	‘blue-speckled parrotfish’ [<i>Leptoscarus vaigiensis</i>]
Adm:	Nali	<i>kuwei</i>	‘blue-speckled parrotfish’ (Akimichi)
Adm:	Penchal	<i>k^wil</i>	‘blue-speckled parrotfish’
Adm:	Andra	<i>ulah</i>	‘ <i>H. harid</i> ³¹
Adm:	Loniu	<i>uleh</i>	‘long-nosed parrotfish’
Adm:	Lenkau	<i>ulep</i>	‘Scaridae, parrotfish’
Adm:	Titan	<i>ula</i>	‘Scaridae’

²⁹ The formal similarity to PEOc **lapi* is probably coincidental.

³⁰ Reconstructed on the basis of Pendau (WMP) *lape?* ‘parrotfish’ (Phil Quick pers. comm.), together with the Oceanic evidence.

³¹ *H. harid* is an Indian Ocean species closely related to *H. longiceps* (Kailola:377, FISHBASE)

- PT: Iduna *ulahi* 'k.o. fish, large' (for †*unavi*)
 MM: Patpatar *uleh* 'k.o. fish'
 MM: Kara (East) *ulafi* 'k.o. fish'
 SES: Gela *ulavi* '*H. longiceps*, longnose parrotfish'
 NCV: Dorig *lov* '*Cheilinus undulatus*'
 NCV: Uripiv *n-uliv* '*H. longiceps*'
 Mic: Kiribati *inai* '*Scarus ghobban* (blue-barred or yellowscale parrotfish)'
 Mic: Mortlockese *ilef* 'k.o. fish'
 Mic: Satawalese *wilef* 'parrotfish'
- PCP **qulavi* '*Hipposcarus longiceps*' (Geraghty)
 Fij: Bauan *ulavi* '*Scarus* sp., red parrotfish'
 Fij: Wayan *ulavi* 'generic for certain *Scarus* spp.'
- PPn **qulafi* '*Scaridae* spp.' (Hooper)
 Pn: E Uvean *ʔulafi* '*S. brevifilus*' [*S. altipinnis*]
 Pn: Tokelauan *ulafi* '*Scarus* sp.'
 Pn: Tuvalu *ulafi* '*Scarus* spp.'
 Pn: Tikopia *urāfi* '*Scarus* sp.'
- The double-headed or hump-headed parrotfish, *Bolbometopon muricatum*, is distinguished by its size and the hump on its forehead. While most species of parrotfish are under 50 cm in length, the hump-headed parrotfish can reach 120 cm or more. The Admiralties forms below indicate that there was a final POc consonant, probably *-q.
- POc **kam(a,i,u)tuq* '*Bolbometopon*, double-headed parrotfish'
- Adm: Andra *kamidu* '*Bolbometopon*'
 Adm: Titan *kamatu* '*Bolbometopon*, double-headed parrotfish'
 Adm: Drehet *komusu* 'parrotfish'
 NNG: Lukep (Pono) *kamatu* 'large bottom-feeding reef fish that swims in groups and has a large protrusion on its head'
 NNG: Kove *amatu* 'double-headed parrotfish'
 NNG: Bing *kamtuw* 'like double-headed parrotfish, up to 1.8m long, larger than *maham* variety'
 MM: Patpatar *amatu* 'k.o. fish, big and green'
 MM: Ramoaaina *kamit* 'k.o. shiny fish'
 Mic: Woleaian *xemasu(xur)* 'k.o. parrotfish'
- PCP **kām(o,u)tu* 'female *Scarus sordidus*' (Geraghty)
 Fij: Kadavu *kāmotu* 'female *Scarus sordidus*'
- PPn **kamutu* '*Scarus* sp.' (Hooper)
 Pn: Tongan *kamutu* '*Scarus* sp.' (Geraghty. Not in Churchward)
 Pn: Tokelauan *kāmutu* '*S. jonesi*, female, green parrotfish'
- cf. also:

PT:	Gumawana	<i>motu-motu(ya)</i>	‘k.o. fish’
SV:	Anejom̃	<i>n-aumat</i>	‘k.o. small parrotfish’

POc **kosa* ‘k.o. parrotfish’

PT:	Bunama	<i>osa (ala alwa)</i>	‘k.o. parrotfish’
PT:	Misima	<i>kosa</i>	‘generic for certain coloured parrotfish spp.’
PT:	Kilivila	<i>kola-la</i>	‘k.o. fish’
SES:	Langalanga	<i>kosa</i>	‘parrotfish (generic): <i>Cetoscarus (kosa bulu</i> (black), <i>kosa abu</i> (red); <i>kosa marak^wa</i> (green); <i>kosa mara</i> (multicoloured)’
SES:	To’aba’ita	<i>kosa</i>	‘parrotfish (generic). Five kinds are named according to colour’ (Barnett 1978)
Mic:	Carolinian	<i>oša</i>	‘large sp. of parrotfish’

The exact form of the next reconstruction is unclear, as (i) the vowels have switched places in some reflexes, and (ii) Gapapaiwa *-n-* reflects both POc **-l-* and **-n-*. **-l-* is reflected in the Bauro and Rapa reflexes, **-n-* in the remaining Polynesian reflexes.

POc **me[l,n]aŋa~*ma[l,n]eŋa* ‘k.o. parrotfish’

PT:	Gapapaiwa	<i>mena-menaya</i>	‘parrotfish’
SES:	Bauro (West)	<i>mareŋa</i>	‘parrotfish’ (Barnett 1978)
Pn:	Niuatoputapu	<i>meneŋa</i>	‘ <i>Scarus jonesi</i> ’
Pn:	Tongan	<i>meneŋa</i>	‘parrotfish, greenish-blue’
Pn:	Niuean	<i>moneŋa</i>	‘bluish parrotfish, <i>Scarus</i> sp.’
Pn:	Pukapukan	<i>māneŋa</i>	‘ <i>Chlorurus microrhinos</i> , blunt-headed parrotfish’
Pn:	Rapa	<i>ma-mariŋa</i>	‘ <i>S. ghobban</i> , blue-barred parrotfish’
Pn:	Tuamotuan	<i>maneŋa</i>	‘ <i>S. gibbus</i> [<i>C. microrhinos</i>]’ ³²

The colour term green/blue has been reconstructed as POc **[ma]karawa*, PEOc **marawa* (see vol.2, p.207). This is no doubt the source of the following term for the green parrotfish. The Motu term can carry a number of modifiers which are also colour terms: *karava vaiuri* (*vaiuri* = purplish), *karava kaka kaka* (red), *karava labora* (yellow) (Nigel Oram n.d.). The Micronesian forms reflect **maRawa*, not **marawa*.

POc **[m,k]arawa* ‘green parrotfish spp.’

PT:	Motu	<i>karava (gira-gira)</i>	‘parrotfish: <i>Chlorurus strongylocephalus</i> , (purple-headed parrotfish); <i>Callyodon formosus</i> , (Kellogg’s parrotfish); <i>Scarus microrhinos</i> (blunt-headed parrotfish). <i>Gira gira</i> refers to colour. Face is bent with large forehead’ (Oram n.d.)
PT:	Hula	<i>rawa</i>	‘k.o. blue fish’

³² The species complex comprises *Chlorurus gibbus* in the Red Sea, *Chlorurus strongylocephalus* in the Indian Ocean and *Chlorurus microrhinos* in the west-central Pacific (FISHBASE).

PT:	Misima	<i>aláwa</i>	‘ <i>Scarus flavipectoralis</i> , yellowfin parrotfish’
PT:	Molima	<i>ʔala-ʔalawa</i>	‘parrotfish’
MM:	Lihir	<i>mar</i>	‘ <i>Scarus</i> spp. esp. <i>S. microrhinos</i> ’ [<i>Chlorurus microrhinos</i>]
SES:	Gela	<i>mara</i>	‘parrotfish generic’ (loss of <i>*-wa</i> unexplained)
SES:	Lau	<i>mara</i>	‘parrotfish’ (loss of <i>*-wa</i> unexplained)
SES:	Arosi	<i>marawa</i>	‘k.o. fish; green’
		<i>marawa-rawa</i>	‘small green fish with crimson markings like a skeleton’
Mic:	Kiribati	<i>māwa</i>	‘ <i>Scarus frontalis</i> , green parrotfish’ [<i>Chlorurus frontalis</i>] (<i>māwawa</i> ‘green, blue’)
Mic:	Ponapean	<i>māw</i>	‘any blue parrotfish’
cf. also:			
NCV:	Mota	<i>mera</i>	‘k.o. fish’
NCV:	Dorig	<i>mer</i>	‘ <i>Scarus frenatus</i> ’

POc **(ma)manu* ‘*Scarus* spp.’

NNG: Kove *manu(kaikai)* ‘k.o. parrotfish’

PPn **mamanu* ‘*Scarus* spp.’ (Hooper)

Pn:	Tongan	<i>mamanu</i>	‘parrot fish’
Pn:	E Uvean	<i>mamanu</i>	‘ <i>Choerodon transversalis</i> ’ [<i>C. graphicus</i>]
Pn:	Samoan	<i>mamanu</i>	‘reddish-brown species of genus <i>Scarus</i> when about 30–60 cm long’
Pn:	Tokelauan	<i>mamanu</i>	‘ <i>S. chlorodon</i> , ocean parrot fish’ [<i>S. prasiognathos</i>]
Pn:	Tuvalu	<i>mamanu</i>	‘ <i>Scarus</i> spp.’

cf. also:

Adm: Loniū *manaw* ‘purple-headed parrotfish’

The Patpatar and Buma reflexes in the following cognate set indicate a monosyllable. The PCP form is probably the outcome of **b^wos* + an unknown morpheme.

POc **b^wos* ‘*Scarus* sp., k.o. parrotfish’

MM:	Patpatar	<i>pos</i>	‘long-nosed parrotfish’
TM:	Buma	<i>boro</i>	‘ <i>Scarus blochi</i> ’

PCP **bōsē* ‘*Scarus* sp.’ (Geraghty)

Fij:	Lau	<i>bōsē</i>	‘ <i>Scarus</i> sp.’
Pn:	Niutoputapu	<i>pōsē</i>	‘parrotfish’

cf. also:

Pn: Pukapukan *mōyē* ‘k.o. wrasse, *Stethojulis bandanensis*’

Lower-level reconstructions include Proto North Vanuatu **saum^wa* ‘parrotfish, *Scarus* sp.’ (François 2005:499), PCP **bobo* ‘*Scarus* sp.’ (Geraghty p.160) and PPn **qufu* ‘wrasse or parrotfish’ (Hooper p.217).

48 Sandperches, Grubfishes (Pinguipedidae, and also Mugiloididae, Parapercidae)

Fijian *iko-tokoto-nivōsai* and PNPn **takoto* (E Uvean and Samoan), although evidently similar, are both independently derived from the verb PCP **(ta)koto* ‘lie down’, which is typical sandperch behaviour (Geraghty p.160). Samoan *taʔoto* is glossed ‘saury’, a fish from a different family, but one which also tends to lie on the bottom, sometimes burying itself in sand. No widespread cognate sets have been located.

49 Gobies, including mudskippers (Gobiidae), blennies (Blenniidae)

Gobies are very small sluggish fishes abundant about reefs and coral. They are usually found sheltering among weeds, under stones or in crevices, in rock pools and quiet water (Munro p.493). They constitute the largest family of marine fishes worldwide with several hundred species in New Guinea alone, but the paucity of terms in dictionaries for gobies suggests they are of little importance. There are some freshwater species. Mudskippers or land gobies can leave the water and hop or crawl over rocks or mud in search of food. They were formerly classified as Periophthalmidae, but are now considered a sub-family of Gobiidae. Blennies are small carnivorous fishes, living mainly in rock pools in the intertidal zone. They rarely swim free and spend most of their time concealed. Oceanic languages often group them with gobies which inhabit similar environments.

POc **kakawa* ‘goby, blenny’

PT:	Muyu	<i>k^wak</i>	‘gobies’ (Damon 1990)
SES:	Gela	<i>kakau (pilo)</i>	‘blennies generic, particularly incl. rockskippers’ (<i>pilo</i> ‘to wave about’)
SES:	Lau	<i>ak^wa-ak^wa</i>	‘sp. of walking fish in the mangroves’ (for † <i>ʔak^wa-ʔak^wa</i>)
SES:	Arosi	<i>ʔaʔawa</i>	‘blenny’
SV:	Anejoñ	<i>ne-koa</i>	‘ <i>Ecsenius</i> sp., blenny’
Mic:	Woleaian	<i>xawe-xaw</i>	‘ <i>Chlorurus</i> spp., wrasse’
Pn:	Hawaiian	<i>ʔaʔawa</i>	‘ <i>Bodianus bilunulatus</i> , wrasse’

cf. also:

Pn:	Rennellese	<i>kagapa</i>	‘small inedible rock-climbing black fish, prob. blennies’ (reflects a hypothetical <i>*kalawa</i>)
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Lower level reconstructions include PCP **l(o,a)kuya* ‘blenny’, PNCV **lavo* ‘skipper, blenny’, PPn **(m,p)anoko* ‘generic for gobies, mudskippers, blennies’, and PPn **talae* ‘mud-skipper’ (Geraghty p.160, Clark 2009:125, Hooper p.218).

50 Sleepers, gudgeons (Eleotridae)

These fish are similar to gobies in their habit of lying on the bottom and rarely moving. Some species hover in cloud-like swarms over coral heads. Most are small and insignificant but there are some fresh water species which grow larger and are valued food fish in inland areas (Munro p.512).

PEOc **bakopu* ‘k.o. fish, possibly *Eleotris* sp.’

SES:	Gela	<i>bayovu</i>	‘sp. of freshwater fish, flat head, remains alive in mud’
SES:	Kwaio	<i>bakofu</i>	‘needlefish’
SES:	Arosi	<i>baʔohu</i>	‘k.o. fish found in swamps, taboo to children’
Fij:	Wayan	<i>bukovu</i>	‘freshwater fish, gudgeon’
Pn:	Samoa	<i>paʔofu</i>	‘ <i>Eleotris fusca</i> ’
Pn:	Rennellese	<i>paghabu</i>	‘ <i>Eleotris fusca</i> ; highly prized goby fish at the Lake and in waterholes elsewhere’

Two lower-level reconstructions are PCP **uvi* ‘k.o. fish, poss. Eleotridae’ and PCP **vo(q)o* ‘k.o. small fish’, PFij **vō* ‘Eleotridae’ (Geraghty p.168).

51 Whitebait

English folk taxonomies evidently use the term ‘whitebait’ for a range of very small silver schooling fishes from various families including Eleotridae, Atherinidae, Engraulidae, Clupeidae and Galaxiidae (smelts).

POc **jiŋana* ‘whitebait’

MM:	Roviana	<i>ziŋana</i>	‘whitebait’
NCV:	Uripiv	<i>jiŋaŋ</i>	‘whitebait’
Fij:	Bauan	<i>ḍiŋana</i>	‘whitebait’

PPn **(h)inaŋa* ‘whitebait’

Pn:	Samoa	<i>inaŋa</i> or <i>iŋaŋa</i>	‘whitebait of the <i>paʔofu</i> , <i>Eleotris fusca</i> ’
Pn:	Māori	<i>inaŋa</i>	‘whitebait, <i>Galaxias</i> ’

52 Flatheads (Platycephalidae)

These moderate-sized fish are adapted for life on the bottom where they bury themselves in sand with only the eyes exposed. Most are excellent eating (Munro p.526). Thus it is surprising that few terms have been recorded from contemporary languages and no reconstructions made.

53 Moorish idols (Zanclidae)

Moorish idols superficially resemble butterflyfish, with strongly marked bands of black, white and yellow, but have a distinctive protruding snout. They are found around coral reefs

in shallow water. Formerly two species were recognised, *Zanclus canescens* and *Z. cornutus*, but the former is now considered the juvenile form of the latter (Kailola p.459, FISHBASE). Hooper (p.215) has reconstructed PNPn **laulau-fau* ‘*Zanclus canescens*, Moorish idol’.

54 Unicornfishes, surgeonfishes, bristletooths, tangs (Acanthuridae)

All Acanthuridae are herbivorous coral reef fish, scraping algae with their fine teeth. Genera include *Naso*, *Acanthurus*, *Zebrasoma* and *Ctenochaetus*. They have thick leathery skin and a spine with one or more knife-like barbs on the tail which are capable of severe wounding. Surgeonfish are so named because of these lancet-like spines, unicorn fish because of the horn-like projection on the forehead. Juveniles differ greatly and are usually separately named in vernacular nomenclatures (Munro p.482). More POC reconstructions have been made for Acanthuridae than for any other family. Three refer to the genus *Naso* ‘unicornfish’, but only one, **qume*, clearly refers to a single species, *Naso unicornis*.

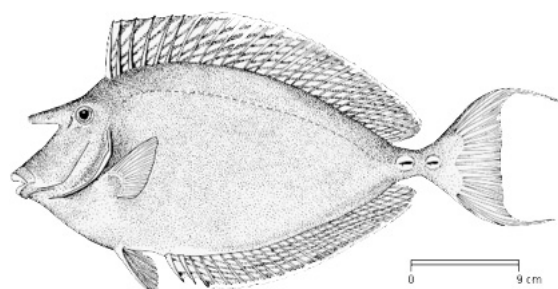


Figure 2.25 *Naso unicornis*, long-snouted unicornfish

PMP **qumay* ‘unicorn fish, *Naso* spp.’ (ACD)

POC **qume* ‘*Naso unicornis*, long-snouted unicornfish’

PT:	Hula	<i>yume</i>	‘ <i>Naso unicornis</i> ’
SES:	Kwaio	<i>ume</i>	‘ <i>Alutera</i> sp. (prob. <i>A. monoceros</i> , the unicorn leatherjacket)’
SES:	To’aba’ita	<i>umea</i>	‘ <i>N. unicornis</i> ’
SES:	Langalanga	<i>ume</i>	‘ <i>N. unicornis</i> ’
SES:	Lau	<i>ʔume</i>	‘k.o. black flattish fish, good eating’
SES:	Ulawa	<i>ume (totoro)</i>	‘ <i>N. unicornis</i> ’ (<i>totoro</i> ‘crest’)
SES:	Arosi	<i>ume</i>	‘ <i>N. unicornis</i> ’
NCV:	Mota	<i>ume</i>	‘large fish with a lump on the forehead’
NCV:	Vera’a	<i>ʔm</i>	‘ <i>N. tuberosus</i> ’ [hump-nosed unicornfish]
NCV:	Lewo	<i>me</i>	‘unicorn fish’
Mic:	Woleaian	<i>xium</i>	‘k.o. fish with long snout’
Mic:	Sonsorolese	<i>gume</i>	‘ <i>N. unicornis</i> ’
Mic:	Satawalese	<i>kim</i>	‘ <i>N. unicornis</i> ’

PPn **qume* ‘*Naso* sp., unicornfish’ (Hooper)

Pn:	Tongan	<i>ʔume</i>	‘ <i>N. unicornis</i> ’
Pn:	Niuatoputapu	<i>ʔume</i>	‘ <i>Naso</i> spp.’
Pn:	Samoa	<i>ume</i>	‘name given to mature fishes of the genus <i>Naso</i> when about 30 cm long and over’ (<i>ume-lei</i> ‘ <i>Naso</i> when about 15 cm long’)

Pn:	Rennellese	<i>ʔume</i>	‘k.o. large fish, similar to <i>punoʔi</i> , perhaps a unicorn fish or parrot fish’
		<i>ʔume (kan)</i>	‘a unicorn fish’ (<i>kanu</i> ‘patterned’)
Pn:	Rarotongan	<i>ume</i>	‘fish sp., leather-jacket’
Pn:	Tikopia	<i>ume</i>	‘ <i>N. unicornis</i> ’
cf. also:			
PT:	Kilivila	<i>gum</i>	‘k.o. fish’ (g- for †k-)

In the next set, PNPn languages have added reflexes of PPn **tifi* ‘tip, point, extremity’ to the reflex of POc **taRat*.

PMP **taRat* ‘*Naso* spp., unicornfish’

POc **taRat* ‘*Naso* spp., incl. *N. brevirostris*, short snouted unicornfish’

NNG:	Lukep (Pono)	<i>tare</i>	‘tang’
PT:	Gumawana	<i>(ia) tala</i>	‘ <i>N. brevirostris</i> , short snouted unicorn fish’
PT:	Lala	<i>(iʔa) laka</i>	‘k.o. fish’ (metathesis)
PT:	Motu	<i>tara</i>	‘k.o. fish’
MM:	Marovo	<i>tarasi</i>	‘generic for several species of large surgeonfish’ (for † <i>tarata</i>)

PCP **tā* ‘*Naso* sp.’ (Geraghty)

Fij:	Bauan	<i>tā</i>	‘leatherjacket or unicorn fish’
Fij:	Wayan	<i>tā(ovuvu)</i>	‘ <i>N. tuberosus</i> , humpnose unicorn fish’
Pn:	Tokelauan	<i>tā(tifi)</i>	‘unicorn fish’
Pn:	Tikopia	<i>tā(tivi)</i>	‘ <i>N. unicornis</i> ’
Pn:	Tahitian	<i>ta(tihi)</i>	‘ <i>N. brevirostris</i> , short-nosed unicorn fish’

POc **m(a,o)nuRV* ‘*Naso* sp., unicornfish’

Adm:	Titan	<i>m^wanoi</i>	‘ <i>N. unicornis</i> , long-snouted unicornfish’
Adm:	Lenkau	<i>manoi</i>	‘unicornfish’
Adm:	Loniu	<i>monoy</i>	‘ <i>N. unicornis</i> ’
Adm:	Mussau	<i>manoi</i>	‘unicornfish’
NNG:	Bing	<i>manur</i>	‘ <i>N. lituratus</i> , poll unicornfish’ (Also known as stripe-face or orange-spine unicornfish)
Mic:	Satawalese	<i>mono</i>	‘k.o. surgeonfish, <i>Naso</i> sp.’
Pn:	Pukapukan	<i>maono</i>	‘ <i>Acanthurus guttatus</i> , white-spotted surgeonfish’ (<i>o</i> unexpected)

A number of terms for surgeonfish have been reconstructed. The following reconstruction, POc **piRa(q)*, is identical in form with the term for *Alocasia*, swamp taro, which, like *Zebrasoma veliferum*, is unpalatably acid unless the skin is carefully removed (Geraghty 1990:78). A parallel development is found in Rotuman, where *ʔapea* means both ‘swamp taro’ and ‘sailfin tang’.

PMP *biRaq ‘*Zebrasoma veliferum*’ (also ‘*Alocasia*, wild taro’) (Blust 2002)

POc *piRa(q) ‘*Zebrasoma veliferum*, sailfin tang’

Adm:	Titan	<i>pa-pai</i>	‘ <i>Acanthurus</i> spp.’ (metathesis)
MM:	Maringe	<i>(baba)fra</i>	‘k.o. surgeonfish’
SES:	Gela	<i>(iga) vila</i>	‘ <i>Zebrasoma veliferum</i> , sailfin tang’
NCV:	Lewo	<i>piya(ewa)</i>	‘fish with tough skin, sharp tail’

PFij *via ‘*Zebrasoma veliferum*’ (Geraghty)

Fij:	Bauan	<i>via</i>	‘k.o. fish, broad with large breast fins’
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POc *bi[r,R]apa ‘*Acanthurus lineatus*, blue-lined surgeonfish’

PT:	Kilivila	<i>bilawa-wa</i>	‘k.o. fish’
MM:	Nehan	<i>berau</i>	‘ <i>A. triostegus</i> , convict surgeonfish’
MM:	Nduke	<i>be-bera</i>	‘ <i>A. lineatus</i> , blue-lined surgeonfish’
SES:	To’aba’ita	<i>belafa</i>	‘ <i>A. lineatus</i> ’
SES:	Longgu	<i>belava</i>	‘ <i>A. lineatus</i> ’
SES:	Arosi	<i>biraha</i>	‘ <i>A. lineatus</i> ’
NCV:	Dorig	<i>brav</i>	‘ <i>A. lineatus</i> ’
NCV:	Lakon	<i>pirav</i>	‘ <i>A. lineatus</i> ’
Mic:	Satawalese	<i>parapar</i>	‘ <i>A. guttatus</i> ’ [white-spotted surgeonfish]
Fij:	Rotuman	<i>poraha</i>	‘k.o. fish with sting in its tail, longitudinal yellow and blue stripes, <i>A. lineatus</i> ’

POc *maRa ‘*Acanthurus* sp., possibly *A. xanthopterus*, yellowfin surgeonfish’

Adm:	Andra	<i>ma</i>	‘ <i>A. xanthopterus</i> ’
Adm:	Loniu	<i>may</i>	‘surgeonfish or similar poison-spined fish’
NNG:	Mutu	<i>mara</i>	‘ <i>A. xanthopterus</i> ’
Pn:	Pukapukan	<i>mā</i>	‘ <i>Ctenochaetus striatus</i> , bristle-toothed surgeon-fish’
Pn:	Tikopia	<i>ma</i>	‘ <i>A. bleeckeri</i> , dark colour, about 30 cm.’ [<i>A. mata</i>]

cf. also:

PT:	Kilivila	<i>mawa</i>	‘ <i>A. xanthopterus</i> ’
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PMP *katawan ‘fish sp.’ (ACD)

POc *katawan ‘*Acanthurus* taxon, surgeonfish’

PT:	Misima	<i>tayan</i>	‘ <i>A. dussumieri</i> , ornate surgeonfish’
SES:	Arosi	<i>ḷāwa</i>	‘fish sp.’
Mic:	Kiribati	<i>katāwa</i>	‘ <i>A. lineatus</i> , bluebanned surgeonfish’

PMP *paliR ‘surgeonfish’ (Blust 2002: PWMP)

POc *[qa]paliR ‘*Acanthurus*, surgeonfish’

PT:	Misima	<i>havani</i>	‘ <i>A. nigricauda</i> , blackstreak surgeonfish’ (initial <i>h</i> -for $\dagger\emptyset$)
MM:	Marovo	<i>valiri</i>	‘generic for several medium sized dark surgeonfish’

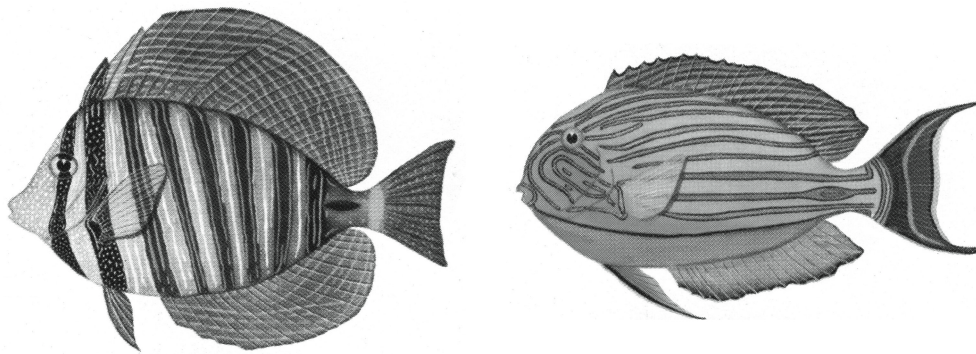


Figure 2.26 Left *Zebrasoma veliferum*, sailfin tang. Right *Acanthurus lineatus*, blue-lined surgeonfish.

TM:	Buma	waviliro	' <i>A. lineatus</i> , lined surgeonfish'
PCP *qavali 'Acanthurus sp.' (Geraghty)			
Fij:	Rotuman	alahi	'Acanthurus sp.' (metathesis)
Pn:	Niuatoputapu	?afali	' <i>A. blochii</i> '
Pn:	Rennellese	?ahangi	'Acanthurus sp.'
cf. also:			
Fij:	Wayan	bali-bali	'possibly <i>A. lineatus</i> '
POc *[s,j]abij 'Acanthurus spp., incl. <i>A. guttatus</i> , white-spotted surgeonfish'			
Adm:	Loniu	capaj	'possible tang or surgeonfish'
Mic:	Kiribati	riba	'Acanthurus, surgeonfish generic' (vowel metathesis)
PCP *(s,ð)abi 'Acanthurus guttatus, spotted surgeonfish' (Geraghty)			
Fij:	Lau	sabi	' <i>A. guttatus</i> '
PPn *hapi 'Acanthurus guttatus' (Hooper)			
Pn:	Tongan	hapi	'k.o. fish'
Pn:	Niuean	hapi	' <i>A. guttatus</i> , surf surgeonfish'
Pn:	Niuatoputapu	hapi	' <i>A. guttatus</i> '
Pn:	Rennellese	api	'some species of surgeonfishes'
Pn:	Tokelauan	api	'surgeonfish'
Pn:	Tikopia	api	'surgeonfish'

The transfer of meaning in Micronesian languages in the next set is unexplained.

PMP *qaroŋo 'Acanthurus spp.'³³

POc *qaroŋo 'surgeonfish, *Acanthurus* sp.'

Adm:	Titan	kalon	' <i>Ctenochaetus striatus</i> , orange-dotted hair-tooth surgeonfish'
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³³ Based on Pendau (WMP) aroŋo 'Acanthurus leucosternon, surgeonfish' (Phil Quick pers. comm.) together with the Oceanic cognates.

- NNG: Takia *aron* ‘*A. bleekeri*, yellowmask surgeon-fish’ [*A. mata*]
SV: Anejom̃ *n-aran* ‘*A. gahhm*’[black surgeonfish]
- PMic **aroyo* ‘Carangid fish, pompano, skipjack’ (Bender et al. 2003)
Mic: Kiribati *(te)ayoy* ‘a jackfish’
Mic: Chuukese *aron* ‘k.o. fish’
Mic: Carolinian *aron* ‘fourth of five growth stages of the skipjack’
Mic: Ponapean *ayoy* ‘bluejack crevally’
- PPn **qaloyo* ‘*Acanthurus* sp., probably *A. lineatus*, blue-lined surgeonfish’ (Hooper)
Pn: Tongan *qaloyo* ‘*A. lineatus*’
Pn: E Uvean *qaloyo* ‘*A. lineatus*’
Pn: Rennellese *qayoy* ‘surgeonfish, probably *A. lineatus*’
Pn: Niuatoputapu *aloyo* ‘surgeonfish’
Pn: Samoan *aloyo* ‘*Acanthurus*, when full grown’
Pn: Tikopia *aroyo* ‘*A. lineatus*’
- POc **kir[i,au]* ‘Acanthuridae’
Adm: Andra *kirau* ‘surgeonfish’
NNG: Tami *gilau* ‘*A. bleekeri*’, k.o. surgeonfish: [*A. mata*] (g- for exp k-)
NNG: Bing *kir* ‘surgeonfish’
NNG: Kove *kiri* ‘fish, unicornfish?’
MM: Patpatar *kilo* ‘surgeonfish’ (-l- for †-r-)
Pn: Samoan *ṛili(ū)* ‘name of certain fishes of genera *Zebrasoma* and *Acanthurus*, the skin of which is said to be poisonous’
 ṛili-ṛilia ‘name of fishes of genus *Naso* when about 5 cm long’
Pn: K’marangi *kili(ū)* ‘*Zebrasoma* sp., tang’
- The Loni (Adm) reflex (*ṛa*)*pon* below could reflect either POc **bolo* or **bone*. Both reconstructions refer to small, dark Acanthuridae.
- POc **bolo* ‘small dark surgeonfish, possibly *Ctenochaetus*’
Adm: Loni (*ṛa*)*pon* ‘surgeonfish’
MM: Nehan *bo-bol* ‘*Acanthurus* sp., tang’
SES: Gela *bolo-bolo* ‘*Ctenochaetus binotatus*, twospot bristletooth’ (a small dark fish)
SES: Lau *bolo* ‘k.o. small black surgeonfish’
SES: Arosi *boro (i asi)* ‘k.o. fish’
NCV: Mwotlap *no-p^wol* ‘*Acanthurus olivaceus*, surgeonfish with white band on tail’
 p^wol-p^wol ‘*A. leucopareius*?, smaller than *p^wol*’
NCV: Vera’a *p^wol* ‘*Ctenochaetus striatus*, lined bristletooth’
Fij: Rotuman *polo* ‘young blackfish’
Pn: Rennellese *pogo* ‘some kinds of surgeonfish and tangs’

PEOc **bon(e,a)* ‘generic for various small Acanthuridae’

SES: Gela *bo-bona* ‘generic for various spp. incl. *A. nigrofuscus* (dusky surgeonfish), *Ctenochaetus striatus* (lined bristletooth) and *Zebrasoma scopas* (blue-lined tang)’

Fij: Lau *pone* ‘*A. nigrofuscus*’

PPn **pone* ‘*Acanthurus* sp. or *Ctenochaetus striatus*’ (Hooper)

Pn: Tongan *pone* ‘k.o. fish, small, black, nearly circular; *C. striatus* and *Acanthurus* sp.’

Pn: E Uvean *pone* ‘generic for some *Acanthurus* spp.’

Pn: Samoan *pone* ‘*Acanthurus* spp. when about 15 cm long’

Pn: Tikopia *pone* ‘*Acanthurus* spp., dark-coloured, said by Tikopia to be younger growth stage of *ma* (*A. mata*)’.

Pn: Tokelauan *pone* ‘name given to *C. striatus* (*alono*) when it forms schools at spawning season’

cf. also:

Pn: Rennellese *ponoji* ‘general name for unicornfish’

POc **ma(k,q)eto* ‘a dark fish, possibly *Ctenochaetus striatus*’ (POc **maqeto(m)* ‘black’; cf. vol.2, p.206)

MM: Lihir *(mats)maket* ‘*C. striatus*’

MM: Bola *meto* ‘k.o. fish’ (for †*mayeto*)

SES: Lau *mae(i?a)* ‘k.o. fish’

SES: ‘Are’are *make* ‘black’

SES: Arosi *maeo* ‘black’

NCV: Uripiv *(ni)met* ‘*Acanthurus blochii*’

NCV: Paamese *na-meto* ‘k.o. black fish’

Fij: Rotuman *vaefa* ‘*Acanthurus triostegus*’ (v- < POc **m^w-*)³⁴

PPn **maqito* ‘Acanthuridae, possibly *Ctenochaetus striatus*, lined bristletooth’ (Hooper)

Pn: Niuean *meito* ‘*A. xanthopterus*, yellowfin surgeonfish, edible’

Pn: E Uvean *ma?ito* ‘*C. striatus*’

Pn: Pukapukan *maito* ‘*C. hawaiiensis*’

Pn: Rennellese *ma?ito* ‘*Acanthurus* sp.’

Pn: Tahitian *maito* ‘*C. striatus*’

Pn: Rapa *maito* ‘*C. striatus*, *A. nigrofuscus*’

cf. also:

Mic: Kiribati *mako* ‘*A. xanthopterus*’

The distribution of the reflexes below strongly supports POc **balaki* and a seemingly innovative PROc **balaji*.

³⁴ The Rotuman is in some doubt because of the irregular initial and the specific definition, though the final vowel is regular (Geraghty 1994:161).

POc **bala(η,k)i* ‘*Acanthurus* and *Naso* spp.’

Adm:	Mussau	<i>balai</i>	‘k.o. fish’
NNG:	Gedaged	<i>balai</i>	‘fish about 60 cm long, red color’
PT:	Motu	<i>bai</i>	‘fish sp.’
SES:	Lau	<i>balaʔi</i>	‘ <i>Epinephelus areolatus</i> , yellow-spotted rock cod’
NCV:	Namagir	<i>paraŋ</i>	‘k.o. surgeonfish’
Mic:	Mokilese	<i>p^wilak</i>	‘unicorn fish’
Mic:	Marshallse	<i>puilak</i>	‘ <i>Naso lituratus</i> (poll unicornfish)’
Mic:	Ponapean	<i>p^wulak</i>	‘ <i>N. unicornis</i> ’
Mic:	Kiribati	<i>p^wāp^wā</i>	‘ <i>A. guttatus</i> , spotted surgeonfish’

PCP **balaji* ‘*Acanthurus* spp.’ (Geraghty)

Fij:	Bauan	<i>balaji</i>	‘ <i>Teuthis</i> sp.’ (spinefoot sp.)
Fij:	Wayan	<i>balaji</i>	‘generic for <i>Acanthurus</i> spp., surgeonfish, tangs and unicorns’
Fij:	Kadavu	<i>balaji</i>	‘ <i>Acanthurus</i> and <i>Naso</i> spp.’

PPn **palani* ‘*Acanthurus* sp. of large size and elongate shape’ (Hooper)

Pn:	Tongan	<i>palani</i>	‘k.o. fish’
Pn:	Samoa	<i>palani</i>	‘name given to certain fishes of the genus <i>Acanthurus</i> (surgeon fishes) when about 30 cm long’
Pn:	Rennellese	<i>pagani</i>	‘k.o. surgeonfish, perhaps ring-tail surgeonfish: <i>A. xanthopterus</i> ’
Pn:	K’marangi	<i>palani</i>	‘ <i>A. xanthopterus</i> , black-barred surgeonfish’
Pn:	Tikopia	<i>paraŋi</i>	‘surgeonfish’
Pn:	Tahitian	<i>paraʔi</i>	‘ <i>A. xanthopterus</i> ’
Pn:	Hawaiian	<i>palani</i>	‘ <i>A. dussumieri</i> , a surgeonfish famous for a strong odor’

cf. also:

NNG:	Kove	<i>balanu-ŋu</i>	‘large fish’ (<i>b-</i> for † <i>v-</i>)
NNG:	Manam	<i>bela-bela</i>	‘ <i>N. lituratus</i> , poll unicorn fish’
MM:	Nehan	<i>lake-lak</i>	‘ <i>Naso lituratus</i> ’ (no /k/ in Nehan?)

PROc **manini* ‘*Acanthurus triostegus*, convict tang’

NCV:	Raga	<i>manini</i>	‘ <i>Acanthurus</i> spp. incl. <i>A. triostegus</i> ’
NCV:	Namagir	<i>manin</i>	‘k.o. surgeonfish’
Fij:	Lau	<i>manini</i>	‘ <i>Acanthurus triostegus</i> ’
Pn:	Tongan	<i>manini</i>	‘ <i>A. triostegus</i> ’
Pn:	E Futunan	<i>manini</i>	‘ <i>A. triostegus</i> ’
Pn:	Samoa	<i>manini</i>	‘ <i>A. triostegus</i> ’
Pn:	Tikopia	<i>manini</i>	‘ <i>A. triostegus</i> ’
Pn:	Tahitian	<i>manini</i>	‘ <i>A. triostegus</i> ’

Geraghty (pp.161–162) adds further PCP reconstructions: PCP**tusi* ‘*Acanthurus* sp.’ (PPn **tusi* ‘mark, stripe’); **masa* ‘a small dark Acanthuridae, possibly *Zebrasoma scopas*, blue-lined tang or *A. pyroferus*, mimic surgeonfish’ and **ma(c,s)i-ma(c,s)i* ‘*Naso* sp.’.

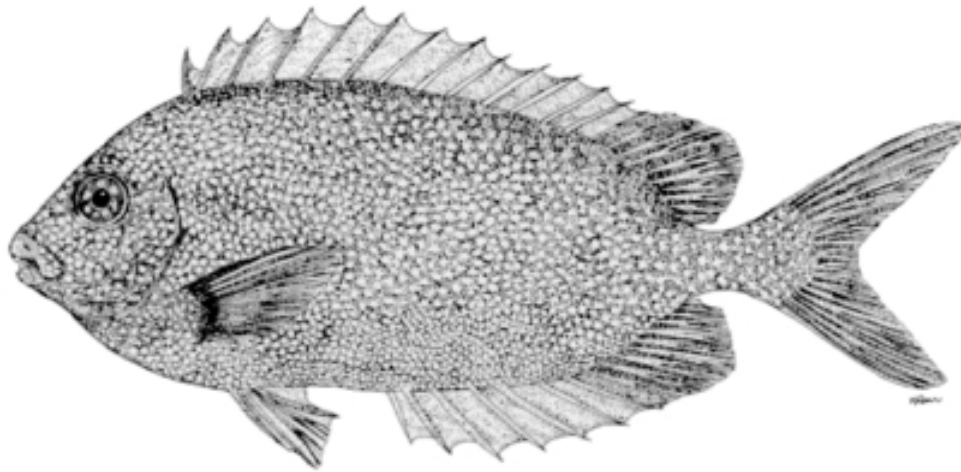


Figure 2.27 *Siganus punctatus*, gold-spotted spinefoot

55 Rabbitfishes, spinefeet (Siganidae)

Rabbitfish or spinefeet are herbivorous fish, inhabiting grassy shallow waters. Their fin spines are very sharp and can inflict painful stings. They have characteristic rabbit-shaped heads. Their flesh is edible. Oceanic languages usually distinguish several taxa. Two Polynesian terms in the next set refer instead to Epinephelidae which resemble the Siganidae in having dangerous spines.

PMP *kiteŋ ‘rabbitfish’ (Blust 2002)

POc *kitonŋ ‘*Siganus* sp., possibly ‘*Siganus punctatus*, gold-spotted spinefoot’

PT:	Kilivila	<i>kitiga</i>	‘ <i>S. chrysopilos</i> ’ [<i>S. punctatus</i>]
PT:	Misima	<i>kiton</i>	‘ <i>S. punctatus</i> , <i>S. lineatus</i> ’
MM:	Teop	<i>sitono</i>	‘ <i>S. fuscescens</i> , mottled spinefoot’ (< *titoŋ)
MM:	Marovo	<i>itoŋo</i>	‘rabbitfish, possibly <i>S. corallinus</i> ’ [ocellated orange spinefoot]
		<i>it-itoŋo</i>	‘spotted spinefoot, poss. <i>S. stellatus</i> ’
NCV:	Mwotlap	<i>yit</i>	‘ <i>S. doliatus</i> ’
Fij:	Rotuman	<i>kifo</i>	‘ <i>S. rostratus</i> ’ (rabbit-faced spinefoot) [<i>S. argenteus</i>]
Fij:	Wayan	<i>kito</i>	‘prob. <i>S. chrysopilos</i> [<i>S. punctatus</i>], black fish with orange spots’

PPn *kito ‘*Epinephelus* spp.

Pn:	Samoan	<i>tito</i>	‘ <i>S. punctatus</i> ’ (< *titoŋ?)
Pn:	Tuamotuan	<i>kito</i>	‘ <i>Epinephelus microdon</i> ’ [camouflage grouper] [<i>E. polyphekadion</i>]
Pn:	Rapa	<i>kito</i>	‘ <i>E. tuamotuensis</i> ’ [reticulate grouper]

cf. also:

NCV:	Nahavaq	<i>n-atan</i>	‘rabbitfish’ (John Lynch, pers. comm.)
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PMP **muquŋ* ‘k.o. fish’ (ACD)

POc **muqu(ŋ)* ‘*Siganus* taxon, poss. *S. spinus*’

Adm:	Loniū	<i>mu</i>	‘ <i>Siganus spinus</i> , pearl-spotted spinefoot’
NNG:	Gedaged	<i>mu</i>	‘marine fish about 30 cm long, front part yellowish brown, shading off to yellowish toward the rear’
NNG:	Bukawa	<i>(i)-mbu?</i>	‘k.o. spinefoot’
NNG:	Yabem	<i>(i)-mu?</i>	‘k.o. spinefoot’
PT:	Bunama	<i>mu-mu(ya)</i>	‘k.o. spinefoot’
PT:	Misima	<i>mu-mu(ya)</i>	‘ <i>S. canaliculatus</i> , smudgepot spinefoot’
PT:	Motu	<i>mi-mi</i>	‘ <i>S. spinus</i> ’
MM:	Vitu	<i>muyu</i>	‘rabbitfish’
SES:	Lau	<i>mū</i>	‘k.o. white reef fish, good eating; spinefoot’
SES:	Langalanga	<i>mu</i>	‘black spinefoot’

POc **roRo* ‘growth stage of *Siganus* spp.’

Adm:	Andra	<i>dro(ŋ)</i>	‘ <i>S. rostratus</i> , <i>S. argenteus</i> ’ [<i>S. rostratus</i> is a junior synonym of <i>S. argenteus</i>]
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PCP **rō* ‘juvenile *Siganus*’ (Geraghty)

Fij:	Rotuman	<i>rō</i>	‘small silvery fish’ (poss. loan from Samoan)
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PPn **rō* ‘*Siganus* sp.’ (Hooper has **ō* ‘tuna baitfish, such as fry of *Siganus* or *Caesio* spp.’; pp.192, 227)

Pn:	Tongan	<i>ō</i>	‘ <i>S. vermiculatus</i> ’
Pn:	Niuatoputapu	<i>ō</i>	‘growth stage of <i>Siganus</i> ’
Pn:	Samoan	<i>lō</i>	‘ <i>Siganus</i> sp.’
Pn:	Tokelauan	<i>lō(tala)</i>	‘fry of <i>Siganus</i> ’

cf. also:

Pn:	E Uvean	<i>ō</i>	‘ <i>Siganus</i> sp. (expect <i>lō</i>)’
Pn:	Tikopia	<i>ō</i>	‘ <i>S. rostratus</i> [<i>S. argenteus</i>], <i>S. punctatus</i> , spotted rabbitfish’ (expect <i>rō</i>)
Pn:	Tokelauan	<i>ō</i>	‘tiny fish which form dense, spherical schools outside the reef during dark phases of the moon’ (Hooper p.192)

The Admiralties languages below reflect **pajal(a)*, and it is possible that the POc form was **pajala*, not **palaja*.

POc **palaja* ‘*Siganus* spp., rabbitfish’ (ACD: POc *(*p,b*)*ala-(p,b)ala* ‘fish sp.’)

Adm:	Penchal	<i>pacal</i>	‘rabbitfish’ (metathesis)
Adm:	Titan	<i>pacal</i>	‘spinefoot (generic), Siganidae’ (metathesis)
Adm:	Lou	<i>posowe</i>	‘rabbitfish’ (-w- for †-l-)
MM:	Lihir	<i>plats</i>	‘ <i>S. lineatus</i> , <i>S. guttatus</i> , <i>S. corallinus</i> ’
MM:	Tolai	<i>pala-pala</i>	‘fish sp.’
SES:	Lau	<i>falata</i>	‘ <i>Siganus</i> sp.’ (Akimichi)
SES:	Arosi	<i>harata</i>	‘k.o. fish’

SES:	Kahua	<i>farata</i>	‘ <i>S. rostratus</i> ’ [<i>S. argenteus</i>]
NCV:	Vera’a	<i>basara</i>	‘ <i>S. canaliculatus</i> ’ (metathesis)
NCV:	S Efate	<i>fser</i>	‘forktail rabbitfish’ (metathesis) [<i>S. argenteus</i>]
Mic:	Ponapean	<i>pala-pal</i>	‘ <i>S. punctatus</i> ’ [gold-spotted spinefoot]
Fij:	Wayan	<i>volaḏa</i>	‘ <i>S. lineatus</i> ’ [golden-lined spinefoot]

POc **muroR* ‘*Siganus argenteus*, silver or rabbit-faced spinefoot’

Adm:	Nali	<i>m^wilou</i>	‘ <i>Siganus</i> , rabbit-faced spinefoot’
Adm:	Andra	<i>muleo</i>	‘ <i>S. javus</i> , rabbitfish’
Adm:	Lenkau	<i>mulow</i>	‘rabbit-faced spinefoot, <i>Siganus</i> ’ (- <i>l-</i> for †- <i>r-</i>)
MM:	Nehan	<i>mur</i>	‘spinefoot, rabbitfish’
MM:	Maringe	<i>morora</i>	‘rabbit fish with yellow colouring’
Pn:	Rarotongan	<i>muro</i>	‘k.o. fish caught at night with hand net’ (Buck)

POc **marawa* ‘spinefoot sp.’

NNG:	Kove	<i>malava</i>	‘k.o. fish’
PT:	Motu	<i>maraua</i>	‘k.o. fish’
Mic:	Mokilese	<i>mār</i>	‘k.o. spinefoot’
Mic:	Ponape	<i>mār</i>	‘ <i>S. puellus</i> ’ [blue-lined spinefoot]

PPn **marawa* ‘rabbitfish, *S. rostratus*’ [*S. argenteus*]

Pn:	Rennellese	<i>māngau</i>	‘general name for some squirrelfish’
Pn:	Samoan	<i>mālava</i>	‘k.o. fish’
Pn:	Pukapukan	<i>mālava</i>	‘ <i>S. rostratus</i> ’
Pn:	Rarotongan	<i>marava</i>	‘ <i>S. rostratus</i> ’
Pn:	Tokelauan	<i>malava</i>	‘ <i>S. rostratus</i> ’
Pn:	Tahitian	<i>marava</i>	‘ <i>S. rostratus</i> ’
Pn:	Marquesan	<i>maʔava</i>	‘ <i>S. argenteus</i> ’

Two terms similar in form to **marawa*, PCP/PPn **maqawa* ‘*Siganus rostratus*’ and PPn **paqaua* ‘*Siganus spinus*’, have also been reconstructed (Geraghty pp.163–164).

56 Snake mackerels, oilfishes (Gempylidae)

Snake mackerels (*Gempylus serpens*, *Promethichthys prometheus*, *Ruvettus pretiosus*) inhabit deeper coastal and oceanic waters, and are sometimes found at depths as great as 600 metres. The flesh is edible but oily. Davis (1999:164) writes that *Ruvettus pretiosus* is so oily that eating even a small amount of its flesh has a strongly laxative effect. In some parts of Polynesia *R. pretiosus* is known by reflexes of PPn **palu*, whose range of reference may also include jobfish and other deep-sea snappers. Both oilfish and deep-sea snappers are found at great depths (§30). As mentioned earlier (p.78), the ability to fish water at these depths was probably a late Samoic-Outlier innovation. Some local terminologies group snake mackerels with barracudas, also elongated and slender with powerful dentition. In places they may also be identified with catfish (Pukapukan and Tokelauan *kapoa* ‘*Promethichthys prometheus*’ > POc **kaboRa* ‘catfish’). *P. prometheus* has also been known as Bermuda catfish. Hooper has

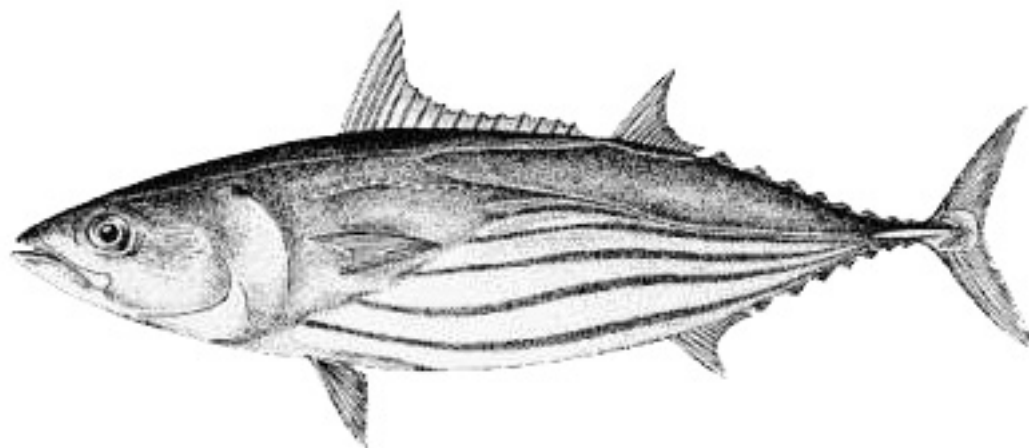


Figure 2.28 *Katsuwonus pelamis*, skipjack tuna

reconstructed PPn **maŋā* ‘k.o. fish’ with meaning in Eastern Polynesian languages ‘*Promethichthys prometheus*, snake mackerel’.

57 Skipjacks, Spanish mackerels, mackerels, tunas, tunnies, albacores, wahoos (Scombridae)

Munro recognised distinct families: Katsuwonidae (skipjack and dogtooth tuna), Scomberomoridae (Spanish mackerel), Scombridae (mackerel), Thunnidae (albacore, tunnies, big eye, bluefin and yellowfin tuna), and Acanthocybidae (wahoo), but these have now been combined as one family, Scombridae (Kailola (1987:467, FISHBASE). These fish are mostly large, fast surface predators, highly regarded both for food and sport. There is considerable variation in English glosses within cognate sets, due possibly to variable popular usage of terms like tuna, bonito, tunny and mackerel by wordlist compilers. In particular, although the English vernacular term bonito typically refers to *Katsuwonus pelamis* (skipjack), it is sometimes extended to include any pelagic fish caught by trolling from fast canoes, including *Katsuwonus*, *Gymnosarda* and *Thunnus*. Reflexes of POc **qatun* may be similarly applied in both narrow and extended senses. *Katsuwonus* (skipjacks) and *Gymnosarda* (dogtooth tunas) are generally distinguished from *Thunnus* (true tunas) by the former’s apparently scaleless body. Most skipjacks (bonito) are school fishes, found around the outer edges of reefs where they can be taken by trolling. They travel in large schools offshore along the coast at certain seasons, the schools often boiling at the surface. These fish have a special role in many parts of the Oceanic world. Simbo speakers in the NW Solomons divide fin fishes into three categories: *bayea* ‘sharks’, *iso* ‘bonito’ and *iyana* ‘generic for all fish other than sharks and bonito’ (Bill Palmer pers. comm.). Ivens (1927:130) writes that “to the Melanesian of the Southeast Solomons the catching of the bonito is one of the things for which he exists. To him it is the king of fish”. Solomon Islanders incorporate them in initiating ceremonies and associate them with various taboos (1927:130–131, 314, 329–330). Many different names are used for bonito in particular roles, a reflection of their importance in these communities. In similar vein, bonito fishing in Kapingamarangi is described by local fishermen as “their

sport of kings” (Lieber 1994:77). In Tonga also, the bonito is considered the king of fish (Dye 1983:251–2).

POc **qatun* ‘*Katsuwonus pelamis*, skipjack tuna’ (ACD)

Adm:	Wuvulu	<i>aʔu</i>	‘skipjack tuna, or bonito’
Adm:	Seimat	<i>at</i>	‘skipjack tuna, or bonito’
NNG:	Manam	<i>atun</i>	‘skipjack tuna, or bonito’
NNG:	Kove	<i>atunu</i>	‘tunny’
PT:	Molima	<i>ʔatune</i>	‘bonito’
MM:	Tangga	<i>atun</i>	‘large fish, too large to catch with ordinary fishing gear’
MM:	Tolai	<i>atun</i> <i>tun-tun</i>	‘fish sp. of the order Scombridae, a bonito’ ‘k.o. small bonito’
MM:	Lihir	<i>atun</i>	‘ <i>K. pelamis</i> and <i>Thunnus albacares</i> , skipjack and yellowfin tuna’
MM:	Nehan	<i>atun</i>	‘bonito (tuna)’
MM:	Halia	<i>atun</i>	‘tuna, albacore or bonito’
MM:	Teop	<i>asun</i>	‘generic for all Scombridae other than wahoo and Spanish mackerel’
SES:	Bugotu	<i>atu</i>	‘bonito’
SES:	Gela	<i>atu</i>	‘i) <i>Katsuwonus pelamis</i> , ii) generic for Scombridae’
SES:	Tolo	<i>atu</i>	‘bonito’
SES:	Lau	<i>sau, hau</i>	‘tuna, skipjack, marlin, wahoo’ (includes more than 10 sub-categories, most correspond to Linnaean spp.) (Akimichi)
SES:	Kwaio	<i>lau</i>	‘bonito’
SES:	’Are’are	<i>rau</i>	‘tuna fish’
SES:	Sa’a	<i>sau</i>	‘bonito’
SES:	Arosi	<i>sau</i>	‘bonito’

PMic **atu* ‘bonito’

Mic:	Kiribati	<i>ati</i> <i>atu-ati</i>	‘ <i>Katsuwonus pelamis</i> , bonito’ ‘a big bonito fish’
Mic:	Carolinian	<i>asil(lə)</i>	‘small sp. of tuna’

PCP **qatu* ‘possibly generic for *Thunnus* and *Katsuwonus* spp.’ (Geraghty: *Katsuwonus pelamis*, skipjack tuna’)

Fij:	Bauan	<i>yatu</i>	‘the yellow-finned tunny, locally called bonito: <i>Neothunnus</i> , <i>Macropterus</i> ’
Fij:	Wayan	<i>atu</i>	‘ <i>Thunnus albacares</i> , yellow-finned tunny; generic for <i>Thunnidae</i> ’

PPn **qatu* ‘*Katsuwonus pelamis*, skipjack tuna’ (Hooper)

Pn:	Tongan	<i>ʔatu</i>	‘k.o. fish, the bonito’
Pn:	Samoa	<i>atu</i>	‘a fish, the bonito: <i>Katsuwonus</i> sp.’
Pn:	Rennellese	<i>ʔatu</i>	‘probably bonito, but usually called <i>sau</i> ’
Pn:	Nanumea	<i>atu</i>	‘skipjack or bonito tuna’
Pn:	Tikopia	<i>atu</i>	‘tunny and other large scombroids incl. bonito, of <i>Thunnus</i> and <i>Neothunnus</i> type, esp. skipjack tuna, <i>Katsuwonus pelamis</i> ’

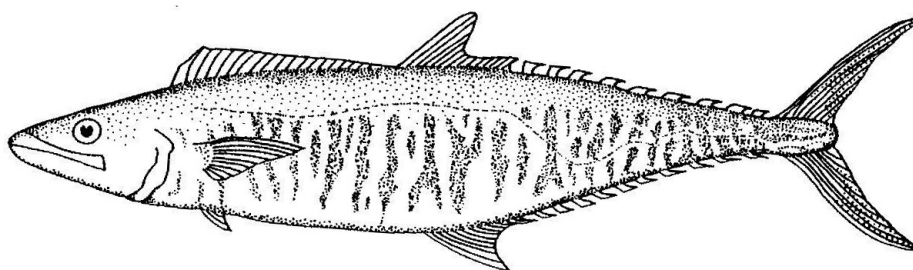


Figure 2.29 *Scomberomorus commerson*, Spanish mackerel

Pn:	Rarotongan	<i>atu</i>	‘bonito, skipjack’
Pn:	Hawaiian	<i>aku</i>	‘bonito, skipjack, <i>Katsuwonus pelamis</i> , an important food item’

Blust (2002:130) notes that Tagalog is the only non-Oceanic language known to have a presumptive cognate, *atun* ‘tunny fish’, albeit with an unexpected high vowel, and concludes that ‘**qatun* probably was a lexical innovation in POc and that the early Spanish explorers in the Pacific borrowed the term from an Oceanic language (most likely in the western Solomon Islands) that preserved final consonants, and then introduced it into the Philippines’.

PROc **tawa-tawa* ‘growth stage of skipjack or dogtooth tuna’

Mic: Kiribati *tawa-tawa* ‘*Euthynnus affinis*, mackerel tuna’

Mic: Puluwatese *yawo(rɔpʷ)* ‘large growth stage of skipjack’

PPn **tawa-tawa* ‘*Euthynnus yaito* [*E. affinis*], black tuna, or *Gymnosarda unicolor*, juvenile, dogtooth tuna’ (Hooper: PNPn)

Pn: Pukapukan *tava-tava* ‘*G. unicolor*’

Pn: Samoan *tava-tava* ‘name given to bonito when about 30 cm long’

Pn: Tokelauan *tava-tava* ‘*G. unicolor* when 40–60 cm’

Pn; Māori *tawa-tawa* ‘*Scomber australasicus*’

Pn: Hawaiian *kawa-kawa* ‘*Euthynnus yaito*’ [*E. affinis*]

cf. also:

Pn: Tongan *kava-kava* ‘*Euthynnus yaito*’ (wrong initial)

Scomberomorus (Spanish mackerels) are moderate to large predatory fishes occurring in schools in coastal waters. Larger ones are caught by trolling near the surface in the vicinity of coral reefs, rocky headlands and sunken shoals. Flesh is white, sweet, rather boneless and highly esteemed. There are perhaps four species of *Scomberomorus*. The largest, *S. commerson*, the narrow-barred Spanish mackerel, has been known to grow to over two metres, although average size is considerably smaller (Munro p.200). Although the following PMP reconstruction is glossed ‘*S. commerson*, Spanish mackerel’, Oceanic cognates do not support a species-specific gloss for POc.

PMP **taŋiRi* ‘*Scomberomorus commerson*, Spanish mackerel’ (ACD)

POc **taŋiRi* ‘Scombridae spp., prob. incl. *Scomberomorus commerson*, narrow-barred Spanish mackerel, and *Acanthocybium solandri*, wahoo’

Adm:	Mussau	<i>taŋini</i>	‘Spanish mackerel’ (- <i>n</i> - by assimilation)
Adm:	Titan	<i>taŋini</i>	‘ <i>Scomberomorus niphonius</i> , Spanish mackerel’ (- <i>n</i> - by assimilation)
NNG:	Gedaged	<i>taŋil</i>	‘white marine fish about 75 cm long, like a mackerel’
NNG:	Bing	<i>taŋir</i>	‘tuna sp., albacore’
NNG:	Gitua	<i>taŋir</i>	‘mackerel, wahoo’
NNG:	Mutu	<i>taŋir</i>	‘wahoo, mackerel’
NNG:	Bukawa	(<i>i</i>) <i>daŋi</i>	‘k.o. Spanish mackerel’ (<i>i</i> ‘fish’)
MM:	Patpatar	<i>taŋir</i>	‘k.o. fish that leaps from the water’
MM:	Lihir	<i>taŋir</i>	‘ <i>Scomberomorus commerson</i> , <i>Acanthocybium solandri</i> , <i>Grammatorycnus bicarinatus</i> , Spanish mackerel, wahoo and double-lined mackerel’
MM:	Teop	<i>tanini</i>	‘wahoo, barred Spanish mackerel’
MM:	Roviana	<i>taŋiri</i>	‘fish generally got by trolling, k.o. kingfish’
MM:	Maringe	<i>taŋiri</i>	‘kingfish’
MM:	Marovo	<i>taŋiri</i>	‘kingfish’
SES:	Arosi	<i>aŋiri</i>	‘shoal of porpoises’
Mic:	Kiribati	<i>tani</i>	‘yellowfin tuna’
Mic:	Chuukese	<i>seŋir</i>	‘large <i>Thunnus albacares</i> , yellowfin tuna’
Mic:	Puluwatese	<i>hæŋir</i>	‘yellowfin tuna’
Mic:	Woleaian	<i>taŋizi</i>	‘king-size tuna’
Mic:	Satawalese	<i>sæŋir</i>	‘the largest tuna, <i>Thunnus</i> sp.’
Pn:	Samoa	<i>taŋi</i>	‘k.o. fish’

cf. also:

MM:	Nehan	<i>taŋili</i>	‘striped tuna, skipjack’ (- <i>l</i> - for exp. - <i>r</i> -)
MM:	Marovo	<i>ta-taliŋi</i>	‘small yellowfin tuna’ (metath.) (- <i>l</i> - for exp. - <i>r</i> -)
SES:	Gela	<i>ili</i>	‘wahoo’
Pn:	Pukapukan	<i>tani</i>	‘ <i>Thunnus alahunga</i> , Albacore’
Pn:	Rennellese	<i>taŋili</i>	‘the large wahoo or jack mackerel’ (probably borrowed from a Solomons language)

POc **walu* ‘Scombridae sp. or spp.’

PT:	Motu	<i>vai(na)-vai(na)</i>	‘Australian Spanish mackerel’
SES:	Gela	<i>alu</i>	‘barracuda’
Mic:	Ponapean	<i>weli-wel</i>	‘tuna’

PCP **walu* ‘k.o. pelagic fish’ (Geraghty)

Fij:	Wayan	<i>walu</i>	‘generic for spanish mackerel and wahoo’
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PPn **walu* ‘Scombridae’ (Hooper)

Pn:	Tongan	<i>walu</i>	‘general name for tuna spp.’ (<i>walu louniu</i> ‘wahoo’)
Pn:	Niuean	<i>walu</i>	‘ <i>Gymnosarda unicolor</i> , dogtooth tuna’

Pn:	E Uvean	<i>valu</i>	‘genus <i>Thunnus</i> (generic)’
Pn:	Tokelauan	<i>valu</i>	‘ <i>G. unicolor</i> when large’
Pn:	K’marangi	<i>walu</i>	‘ <i>Gymnosarda</i> sp., dogtooth tuna’
Pn:	Marquesan	<i>vaʔu</i>	‘Scombridae’

Scomber and *Rastrelliger* (mackerels) are small to moderate pelagic fishes, typically under a metre in length, which migrate in schools and comprise some of the more important food fishes of the world. Munro (p.197) reports that they inhabit shallow coastal New Guinea waters where they are caught by seines or fixed traps.

POc **jalala* ‘*Rastrelliger*, k.o. small mackerel’

NNG:	Bing	<i>dalāl</i>	‘tuna-mackerel family, small’
PT:	Roro	<i>rae</i>	‘k.o. fish’
PT:	Motu	<i>dae</i>	‘ <i>Scomber</i> or <i>Rastrelliger</i> spp.’
SES:	’Are’are	<i>tarara</i>	‘k.o. fish’
NCV:	Uripiv	<i>jelēl</i>	‘ <i>Rastrelliger kanagurta</i> ’
NCV:	Neve’ei	<i>(ni)silal</i>	‘ <i>Rastrelliger</i> ’

PCP **salala* ‘*Rastrelliger*’ (Geraghty)

Fij:	Bauan	<i>salala</i>	‘mackerel’
Fij:	Wayan	<i>salala</i>	‘small grey schooling fish, prob. <i>Rastrelliger</i> sp.’
Pn:	Tuvalu	<i>salala</i>	‘ <i>Decapterus pinnulatus</i> , mackerel scad’ [<i>D. macarellus</i>]

cf. also:

PT:	Misima	<i>dayaya</i>	‘ <i>Rastrelliger kanagurta</i> , long-jawed mackerel’
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Thunnus (bluefin and northern bluefin tuna, yellowfin tuna, albacore, bigeye tuna) are heavy-bodied pelagic school fish. Most belong to deeper waters, but some inhabit the sea over the continental shelf and may be taken by trolling around reefs. Flesh, usually dark, is excellent, one species dubbed ‘chicken of the sea’ (Munro p.200).

POc **taku(a,o)* ‘*Thunnus albacares*, yellowfin tuna’

Adm:	Titan	<i>drou</i>	‘ <i>Thunnus</i> sp., tuna’
Adm:	Nali	<i>drou</i>	‘ <i>T. albacares</i> , yellowfin tuna’
Mic:	Chuukese	<i>toku</i>	‘ <i>T. albacares</i> , yellowfin tuna’
Mic:	Woleaian	<i>taxuw</i>	‘yellowfin tuna’

PPn **taku(a,o)* ‘large tuna or skipjack’ (Hooper)

Pn:	Niuean	<i>takua</i>	‘skipjack tuna, bonito’
Pn:	Tongan	<i>takuō</i>	‘k.o. fish’
Pn:	Pukapukan	<i>takuo</i>	‘pelagic fish caught by noosing (obsolete term known from chants)’
Pn:	Samoan	<i>taʔuo</i>	‘large bonito’
Pn:	Rennellese	<i>takua</i>	‘k.o. very rare porpoise or fish, no longer seen’
Pn:	Tokelauan	<i>takuo</i>	‘yellowfin tuna when very large’
Pn:	K’marangi	<i>takua</i>	‘ <i>T. albacares</i> , yellowfin tuna’
Pn:	Tikopia	<i>takua</i>	‘ <i>Xiphias gladius</i> , swordfish; <i>Makaira indica</i> , black marlin’

François (2005:499) reconstructs Proto North Vanuatu *rowou ‘bonito, *Thunnus* sp.’. Hooper has PNPn *kakasi ‘*Thunnus albacares*, yellowfin tuna’, possibly related to the Marovo and Roviana terms for bonito, *makasi*. The wahoo, *Acanthocybium solandri*, is the sole member of its genus. It is solitary, pelagic, has fine sweet flesh and is rated a splendid sporting fish. The only reconstruction, PPn *paqala ‘*Acanthocybium solandri*, wahoo’ is from Hooper (p.222). In Wayan and Tongan the term for a wahoo is a taxon of PCP *walu.

58 Marlins and sailfishes (Istiophoridae); swordfishes (Xiphiidae)

The Istiophoridae are identified by an upper jaw in the form of a long sword. They are big-game fish, large, fast and powerful, and pelagic in open waters. Three marlins are recognised, *Makaira indica* (black marlin), *M. mazara* (blue marlin) and *Tetrapturus audax* (striped marlin). The sailfish (*Istiophorus platypterus*) has an extremely elevated dorsal fin forming a sail-like structure which folds into a groove. The swordfish (*Xiphias gladius*) is readily known by its particularly long blade-like rostrum. The adult swordfish differs from the marlin and sailfish in having no scales. The name for the sailfish in PMP and POc, *saku-layaR, is a compound, derived from *saku ‘needlefish, garfish, long toms’ (§13) plus *layaR ‘sail’ (see vol.1, p.194). Referential range in reflexes often includes swordfishes and marlin as well as sailfishes, although the first two lack the sail-like dorsal fin.

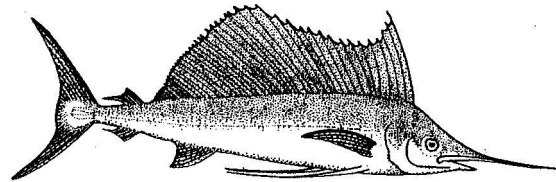


Figure 2.30 *Istiophorus platypterus*, Pacific sailfish

PMP *saku-layaR ‘sailfish, swordfish’ (ACD)

POc *saku-layaR ‘sailfish’

Adm:	Loniu	colay	‘sailfish, marlin, possibly also swordfish’
Adm:	Titan	colay	‘generic for swordfish, marlin’
Mic:	Chuukese	tekulār	‘ <i>Makaira</i> sp., marlins; <i>Istiophorus</i> sp., sailfish’
Mic:	Mokilese	tak-lar	‘swordfish’
Mic:	Puluwatese	tāki-lār	‘sailfish, swordfish’
Mic:	Ponapean	teki-lār	‘swordfish, sailfish, blue marlin’

PCP *saku-laya ‘swordfish, sailfish’ (Geraghty)

Fij:	Bauan	saku-laya	‘the saw-fish proper’ (saku ‘swordfish, <i>Makaira</i> spp.)
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PPn *sakulā ‘swordfish, sailfish’ (Hooper)

Pn:	Tongan	hakulā	‘swordfish’ (haku ‘young hakulā’)
Pn:	Niuean	hakulā	‘true swordfish (compare haku piu ‘sailfish’, haku tanjata ‘marlin’)
Pn:	E Uvean	hakulā	‘ <i>Makaira mazara</i> , blue marlin’
Pn:	Samoaan	saʔulā	‘name given to sword-fish and saw-fish’
Pn:	Tokelauan	hakulā	‘ <i>Xyphias gladius</i> and other swordfish spp.’
Pn:	Tikopia	sakura	‘sailfish’

- Pn: K'marangi *hakulā (tuakua)* 'Makaira sp., marlin'
hakulā-hakulā 'Istiophorus sp., sailfish'

The following reflect only the first element, **saku*:

- NNG: Wogeo *sak barema* 'sailfish'
 NNG: Lukep *sau-rere* 'sailfish'
 NCV: Paamese *me-sau koaa sesali* 'Tetrapturus audax, marlin' (lit. 'fish which spears')
 SV: Ura *yayo* 'marlin'
 Fij: Wayan *saku vorowaga* 'generic incl. most Istiophoridae, marlins and sailfishes' (*vorowaga* 'boat-eating')
saku vorowaga tāŋwane 'blue marlin' (lit. male boat-eating marlin')
 Pn: Hawaiian *aʔu* 'swordfish' (*aʔu-lepe* 'sailfish', *aʔu-kii* 'marlin') (for †*haʔu*)

There is a second term which probably referred to a particular species or subgroup of Istiophoridae in POc. In some languages of the Solomons it has replaced **sakulayaR* as the name for the sailfish. This may be a reduplicated form of POc **piRu(q)* 'fan palm' (vol.3, p.222), whose fronds resemble the large dorsal fin of the sailfish.

POc **piRu-piRu* 'Istiophoridae'

- MM: Nakanai *vilu-vilu* 'sawfish'
 MM: Marovo *viru-viru* 'Istiophorus platypterus, sailfish'
 MM: Roviana *viru-viru* 'k.o. swordfish, smaller than *ikutaina*'
 SES: Gela *vilu-vilu* 'swordfish'
 SES: Lau *filu-filu* 'Istiophorus orientalis, Indo-Pacific sailfish'
 SES: 'Are'are *(ia)hiru* 'marlin'
 SES: Kwaio *fī-filu* 'blue marlin'
 SES: Arosi *hiru-hiru* 'large fish which swims in circles and is the sign of a shark being near'
 SES: Longgu *(koi) vilu-vilu* 'sailfish'
 SES: Langelanga *filu-filu* 'sailfish'
 SES: Owa *(aiga)firu* 'long-bill swordfish, sailfish'
 Mic: Kiribati *ir-iri* 'sailfish'

59 Flounders and soles: left-eye flounders (Bothidae), toothed flounders (Paralichthyidae), right-eye flounders (Pleuronectinae), soles (Soleidae)

Flatfishes are poorly represented in tropical waters in comparison with their abundance in cooler regions. Flounders, toothed flounders and soles are bilaterally asymmetrical, adapted for life on the bottom where they bury themselves in sand or mud. Most inhabit shallow coastal waters and estuaries. Larger ones are good eating (Munro p.124). Flatheads have a similar habit of burying themselves in sand, but lack the distinctive oval shape of flounders

and soles. Many contemporary languages have a generic term for flatfishes. We have two reconstructions, both with generalised gloss. In the next set both POc **alali* and **lalali* are reflected.

PCEMP **alali* ‘halibut, flounder’³⁵

POc **/l/ alali* ‘flatfish incl. flounders, soles’

Adm:	Seimat	<i>alal</i>	‘flounder, <i>Platichthys</i> spp.’
Adm:	Wuvulu	<i>alali</i>	‘flounder, <i>Platichthys</i> spp.’
PT:	Dobu	<i>nenai</i>	‘flounder, sole’
PT:	Kilivila	<i>(bu)lali</i>	‘fish the shape and size of a dinner plate’ (Lawton)
MM:	Patpatar	<i>lel</i>	‘sole’
MM:	Lihir	<i>lel</i>	‘Bothidae, Pleuronectidae and Soleidae, flounders and soles’
MM:	Sursurunga	<i>lal</i>	‘left-eye flounder’
MM:	Nehan	<i>lalen</i>	‘halibut, flounder, sole’
MM:	Halia	<i>lal</i>	‘flounder, halibut’
MM:	Marovo	<i>lali</i>	‘generic for flounders’
SES:	Owa	<i>rarari</i>	‘a flat fish’
NCV:	Mwotlap	<i>lel</i>	‘flat fish’
SV:	Anejoñ	<i>n-acac</i>	‘flatfish, adapted for life on sand’
NCal:	Iaai	<i>n^hen</i>	‘ <i>Bothus</i> sp.’

PCP **lalali*, **ali* ‘flatfish’ (Geraghty: **(y)ali*)

Fij:	Bauan	<i>lālali</i>	‘large flounder’
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PPn **ali* ‘*Bothus* spp., flounder’ (Hooper)

Pn:	Niuean	<i>ali</i>	‘ <i>Bothus</i> sp., flatfish, flounder’
Pn:	Tongan	<i>ali</i>	‘flounder’
Pn:	Rennellese	<i>agi</i>	‘general name for flatfishes, flounders, soles etc.’
Pn:	Samoan	<i>ali</i>	‘name given to flatfish, esp. some flounders’
Pn:	Tokelauan	<i>ali</i>	‘ <i>Bothus</i> sp., flounder’
Pn:	W Futunan	<i>ari</i>	‘ <i>Bothus</i> sp., flounder’

POc **lapaq* ‘various flat fishes incl. sole and flounder’

Adm:	Titan	<i>lapa</i>	‘flathead, Platycephalidae’
Adm:	Loniu	<i>lapak</i>	‘sole spp.’
NNG:	Mutu	<i>lab-lab</i>	‘various sole and flounder spp.’
PT:	Iduna	<i>nafaya</i>	‘flatfish’
PT:	Gumawana	<i>napai</i>	‘flounder’
PT:	Kilivila	<i>napai</i>	‘ <i>Bothus pantherinus</i> ’
MM:	Maringe	<i>glapi</i>	‘flounder’ (final vowel unexplained)
Mic:	Chuukese	<i>lippə(r)</i>	‘all flatfishes’
Mic:	Satawalese	<i>nippæ(r)</i>	‘left eye flounder’

cf. also:

Pn:	K’marangi	<i>pai-pai</i>	‘ <i>Arnoglossus</i> , flounder’
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³⁵ Reflected by Ambon (*al*)*ali* ‘halibut, flounder’ and the Oceanic data.

60 Stonefishes (Synanceiidae)

Scorpionfishes and lionfishes were formerly included with stonefishes as Scorpaenidae, but stonefishes have now been classified as a separate family, Synanceiidae. The latter are shallow-water fishes, very sluggish, spending most of their life concealed in mud or among rocks and coral. Most have grotesquely misshapen heads and bodies covered with rough warty skin. If trodden on, they can inject an extremely painful neurotoxin which, in some cases, has proved fatal to man (Munro p.538). Reflexes of POC **[ñ,n]opu(q)* are numerous and widespread. Most Oceanic languages have merged /ñ/ and n/, so provide no evidence for choosing between competing reconstructions, but Sudest reflects **ñ* only, while Titan, Loniu and Wayan reflect *n* only. Lynch (pers. comm.) suggests the *i* of the Naman term (*ni*)*niv* might be evidence supporting initial **ñ*-. Although the referent is consistent throughout almost all Western Oceanic languages, it has apparently become a generic for fishes with poisonous spines, including at least some scorpionfishes in Micronesia, Wayan Fijian and parts of Polynesia.

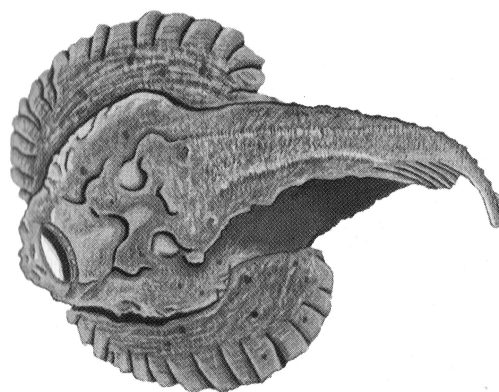


Figure 2.31 *Synanceia verrucosa*, reef stonefish

PMP **ñepuq* ‘stonefish’ (ACD)

POC **[ñ,n]opu(q)* ‘*Synanceia* spp., stonefishes’

Adm:	Mussau	<i>nou</i>	‘stonefish’
Adm:	Titan	<i>no</i>	‘stonefish, Synanceiidae’
Adm:	Loniu	<i>noh</i>	‘k.o. poisonous fish’
NNG:	Kove	<i>nou</i>	‘stonefish’
NNG:	Tuam	<i>nov</i>	‘stonefish’
NNG:	Malai	<i>nob</i>	‘stonefish’
NNG:	Tami	<i>no?</i>	‘stonefish’
NNG:	Takia	<i>nou</i>	‘stonefish’
NNG:	Kaiep	<i>nou</i>	‘stonefish’
NNG:	Manam	<i>nou</i>	‘stonefish’
PT:	Duau	<i>nohu</i>	‘stonefish’
PT:	Misima	<i>nou</i>	‘generic for lionfishes, firefishes and stonefishes’
PT:	Molima	<i>novu</i>	‘stonefish’
PT:	Sudest	<i>ño</i>	‘stonefish’
PT:	Motu	<i>nohu</i>	‘stonefish, <i>Synanceia trachynis</i> ’ [<i>S. horrida</i>]
PT:	Kilivila	<i>lou, nou</i>	‘stonefish’
MM:	Vitu	<i>novu</i>	‘stonefish’
MM:	Bulu	<i>novu</i>	‘stonefish’
MM:	Patpatar	<i>nuh</i>	‘stonefish’
MM:	Halia	<i>nohu</i>	‘poisonous stonefish’

MM:	Marovo	<i>novu</i>	' <i>Synanceia verrucosa</i> , reef stonefish'
SES:	Gela	<i>novu</i>	'most species of the family Scorpaenidae'
SES:	Kwaio	<i>nofu</i>	'stonefish'
SES:	'Are'are	<i>nohu</i>	'small black fish with poisonous spikes on head and back. a prick causing severe pain for several days'
SES:	Arosi	<i>nohu</i>	'k.o. fish with spiny ridge'
PNCV * <i>novu</i> 'scorpion, venomous fish' (Clark 2009:158)			
NCV:	Tamambo	<i>novu</i>	'stonefish, up to 20 cm, changes colour and has poisonous fins'
NCV:	Raga	(<i>b^wati</i>) <i>novu</i>	' <i>Synanceia</i> spp., prob. <i>S. verrucosa</i> , stonefish'
NCV:	Naman	(<i>ni</i>) <i>niv</i>	'stonefish'
NCV:	Kiai	<i>novu</i>	'scorpion'
SV:	Anejoñ	<i>ne-no</i>	' <i>S. verrucosa</i> '
NCal:	Voh-Koné	<i>neuk</i>	'stonefish'
NCal:	Pije	<i>neuk</i>	' <i>S. verrucosa</i> '
Mic:	Kiribati	<i>nou</i>	'Scorpaenidae'
Mic:	Chuukese	<i>nou</i>	' <i>S. verrucosa</i> , stonefish'
Mic:	Puluwatese	<i>nōw</i>	'scorpionfish'
PCP * <i>novu</i> ' <i>Synanceja verrucosa</i> , stonefish' (Geraghty: PCP * <i>ñovu</i>)			
Fij:	Rotuman	<i>nohu</i>	'fish that buries itself in the sand and can inflict a poisonous sting with its fin'
Fij:	Bauan	<i>novu</i>	'fish of an ashen colour, resembling a stone, very rough horny skin'
Fij:	Wayan	<i>novu</i>	'generic for all stonefish and certain scorpionfish which resemble stonefish in appearance and deadly sting'
PPn * <i>nofu</i> ' <i>Synaceja verrucosa</i> , Scorpaenidae spp.' [now Synanceiidae] (Hooper)			
Pn:	Tongan	<i>nofu</i>	'k.o. fish with poisonous spikes'
Pn:	Niuean	<i>nofu</i>	'scorpionfish; stonefish'
Pn:	E Uvean	<i>nofu</i>	' <i>S. verrucosa</i> '
Pn:	Rennellese	<i>nohu</i>	'k.o. poisonous fish'
Pn:	Pukapukan	<i>nou (watu)</i>	' <i>S. verrucosa</i> ' (<i>watu</i> 'stone')
Pn:	Samoa	<i>nofu</i>	'k.o. fish with poisonous spines, <i>Scorpaenopsis</i> and <i>Synanceia</i> '
Pn:	Tikopia	<i>nofu</i>	'stonefish'
Pn:	Hawaiian	<i>nohu</i>	'scorpionfish'

61 Triggerfishes (Balistidae); filefishes and leatherjackets (Monacanthidae)

Triggerfishes (Balistidae) are characterised by a football shape, leathery skin, and small mouth with powerful jaws. They are feeble swimmers, herbivorous, generally solitary in habit, seeking shelter among coral heads and weeds. The flesh of many is poisonous, although others are used for food (Munro p.557). Closely related to Balistidae are the Monacanthidae

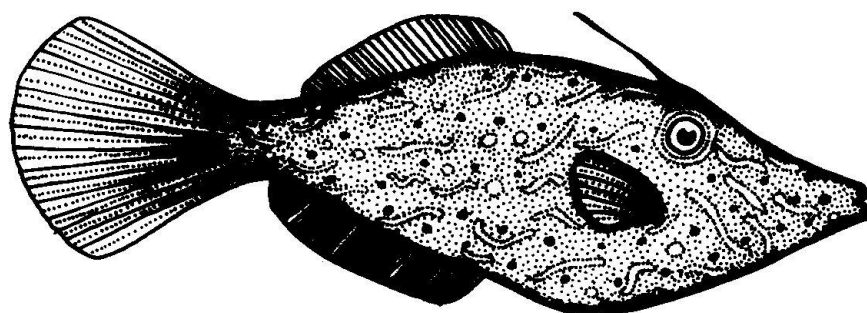


Figure 2.32 *Monacanthus* sp., scribbled leatherjacket

(formerly Aluteridae), leatherjackets and filefishes. They differ from triggerfish in skin texture, leatherjackets having a leathery skin while that of filefish is rough and velvety (Munro p.564). Four POc terms are reconstructable, with **jumu* the most likely candidate for a generic term. **bubu* and **[b^waRu]b^waRu* may, like **lio-lio*, have had more specific reference. Variability of gloss frequently indicates only variability of common names for the same species. For instance, common names for *Pseudobalistes fuscus* include the yellow-spotted triggerfish (Allen & Swainston) or brown triggerfish (Kailola). Although juveniles have yellow lines and spots, adults have overall dark coloration.

POc **jumu* ‘Balistidae, triggerfish and possibly Monacanthidae, leatherjackets’³⁶

NNG:	Tami	<i>sum</i>	‘ <i>Pseudobalistes flavimarginatus</i> ’ [yellow-margin triggerfish]
NNG:	Lukep (Pono)	<i>dum</i>	‘triggerfish, leatherjacket’
PT:	Motu	<i>dumu</i>	‘k.o. triggerfish’
NCV:	Tamambo	<i>jumu</i>	‘k.o. big fish with strong skin’
NCV:	Namakir	<i>him</i>	‘triggerfish’
SV:	Anejoñ	<i>ne-θom^w</i>	‘ <i>Rhinecanthus</i> sp., triggerfish’
NCal:	Iaai	<i>(wa)jimü</i>	‘ <i>Balistes</i> sp.’

PCP **cumu* ‘Balistoidei, triggerfish’ (Geraghty)

Fij:	Rotuman	<i>sumi</i>	‘leather jacket’
Fij:	Bauan	<i>sumu-sumu</i>	‘fish like the porcupine fish, but with no prickles. <i>Tetrodon</i> spp.’
Fij:	Wayan	<i>θum</i>	‘generic for Balistidae and some or all Monacanthidae’
Fij:	Kadavu	<i>θumu</i>	‘ <i>Balistes</i> and <i>Cantherhines</i> spp., smaller than <i>gau</i> ’

PPn **sumu* ‘Balistidae’ (Hooper)

Pn:	Tongan	<i>humu</i>	‘k.o. fish’
Pn:	Niuatoputapu	<i>humu</i>	‘Balistidae, <i>Rhinecanthus aculeatus</i> ’ [black-barred triggerfish]

³⁶ Also listed are a number of terms supporting PNCV **(s,t)umu(s,t)(V)* ‘rabbitfish, *Siganus* spp.’ (Vera ‘a *ʔu-mus*, Dorig *smut*, Lakon *tumuh*, all *Siganus doliatus*, the last two also *S. canaliculatus*, Mota *sumut* ‘k.o. fish’, Uripiv *sumus*, S Efate *sm^wos*, both ‘rabbitfish’. If these are related to POc **jumu*, the PNCV reconstruction is **sumut-i* and a final POc consonant **-t* is indicated (Alex François, John Lynch, pers. comm.).

Pn:	Niuean	<i>humu</i>	‘triggerfish’
Pn:	E Uvean	<i>humu</i>	‘ <i>Balistes</i> spp.’ (<i>humu-humu</i> ‘generic for Balistidae’)
Pn:	Samoaan	<i>sumu</i>	‘triggerfish of genera <i>Balistes</i> and <i>Balistapus</i> ’
Pn:	Tokelauan	<i>humu</i>	‘triggerfish’
Pn:	Tikopia	<i>sumu</i>	‘triggerfish and related types, Balistidae and Monocanthidae’
Pn:	Hawaiian	<i>humu-humu</i>	‘triggerfish (generic)’

POc **bubu* ‘*Balistes* taxon, triggerfish’

Adm:	Titan	<i>bup^w</i>	‘triggerfish, Balistidae’
Adm:	Seimat	<i>pup</i>	‘k.o. reef fish with one large thorn on the back and several by the tail, good to eat’
NNG:	Mangap	<i>bubu</i>	‘k.o. fish’
NNG:	Manam	<i>bubu</i>	‘triggerfish’
NNG:	Gedaged	<i>bub</i>	‘ <i>Pseudobalistes flavimarginatus</i> ’ [green triggerfish] (Mueller)
NNG:	Takia	<i>bub</i>	‘ <i>P. flavimarginatus</i> ’ (Mueller 1985)
PT:	Ubir	<i>fofo</i>	‘k.o. fish’
MM:	Sursurunga	<i>bobo</i>	‘triggerfish’
MM:	Lihir	<i>bombo</i>	‘ <i>B. viridescens</i> , <i>P. flavimarginatus</i> , larger triggerfishes’
MM:	Lihir	<i>bum</i>	‘ <i>Balistopus undulatus</i> , orange-lined triggerfish, a notorious bait-stealer’
MM:	Ramoaaina	<i>bubu</i>	‘k.o. fish’
MM:	Teop	<i>bobo</i>	‘some triggerfish spp.’
SES:	Lau	<i>bubu</i>	‘triggerfish’
SES:	Kwaio	<i>bubu</i>	‘reef triggerfish’
SES:	’Are’are	<i>pupu</i>	‘small fish’
SES:	Arosi	<i>bubu</i>	‘k.o. fish, <i>Balistes</i> ’ (also <i>bubu baru-baru</i>)
SES:	Bauro	<i>pupu</i>	‘ <i>Balistoides viridescens</i> ’
NCV:	Vera’a	<i>bum</i>	‘Balistidae’
Mic:	Satawalese	<i>p^wūp^w</i>	‘triggerfish (generic)’
Mic:	Kiribati	<i>p^wup^wu</i>	‘generic for triggerfish’
Mic:	Chuukese	<i>p^wūp^w</i>	‘family name for triggerfishes’
Mic:	Carolinian	<i>b^wūb^w</i>	‘triggerfish, Balistidae’
Mic:	Mokilese	<i>p^wup^w</i>	‘triggerfish’
Mic:	Ponapean	<i>p^wūp^w</i>	‘leatherjacket’ (Christian 1899)

POc *[*b^waRu*]/*b^waRu* ‘*Balistes* taxon, triggerfish’

PT:	Sinaugoro	<i>balu</i>	‘ <i>Balistoides conspicillum</i> , big-spotted triggerfish’
PT:	Motu	<i>baru-baru</i>	‘triggerfish, general term’
PT:	Lala	<i>balu-balu</i>	‘k.o. reef fish’
PT:	Roro	<i>paru-paru</i>	‘k.o. fish’
MM:	Lihir	<i>pial-pial</i>	‘ <i>Odontus niger</i> , redtooth triggerfish’

MM:	Marovo	<i>baru-baru</i>	‘small triggerfish, prob. <i>Rhinecanthus aculeatus</i> ’
SES:	Longgu	<i>balu-balu</i>	‘ <i>Balistoides viridescens</i> ’
SES:	Langalanga	<i>balu-balu</i>	‘ <i>B. viridescens</i> ’
SES:	Arosi	<i>(bubu)baru-baru</i>	‘a large sp. of <i>Balistes</i> ’
SES:	Kahua	<i>paru-paru</i>	‘ <i>B. viridescens</i> ’
NCV:	Dorig	<i>p^war-p^war</i>	‘ <i>B. viridiscens</i> , <i>B. conspicillum</i> ’
NCV:	Namakir	<i>buru-bar</i>	‘triggerfish’
NCV:	S Efate	<i>p^war-p^wor</i>	‘triggerfish’
SV:	Anejoñ	<i>na-p^wou</i>	‘k.o. triggerfish’
NCal:	Nêlêmwa	<i>f^wa</i>	‘ <i>Balistes</i> sp.’
Fij:	Nadrogā	<i>g^wau</i>	‘large Balistidae’
Fij:	Lau	<i>gau</i>	‘large Balistidae’
Fij:	Kadavu	<i>gau</i>	‘ <i>Balistes</i> spp., larger than <i>cumu</i> .’
cf. also:			
Adm:	Titan	<i>p^walus</i>	‘triggerfish’
Adm:	Penchal	<i>pulot</i>	‘triggerfish, Balistidae’
Adm:	Drehet	<i>p^walap</i>	‘archerfish, 30–40 cm with alternating black and white triangle pattern’
Mic:	Chuukese	<i>p^wini-ini</i>	‘ <i>B. viridescens</i> , moustache triggerfish, Titan triggerfish’
Mic:	Satawalese	<i>pān</i>	‘ <i>Pseudobalistes fuscus</i> , brown triggerfish’

The Titan and Penchal forms above reflect **b^walusV*, which may resemble POc **b^waRu* either through chance or by borrowing.

POc **lio-lio* ‘*Pseudobalistes fuscus*, brown triggerfish’

MM:	Marovo	<i>(makoto) li-lio</i>	‘k.o. large triggerfish’
MM:	Nehan	<i>lio</i>	‘triggerfish (generic)’
Mic:	Ponapean	<i>lio-li</i>	‘large dark blue species of leatherjacket’ (Christian 1899)
Mic:	Mokilese	<i>lio-li</i>	‘yellow-spotted triggerfish’
Mic:	Kiribati	<i>nuo-nuo</i>	‘fish with poisonous darts on tail, <i>Balistes fuscus</i> ’
Fij:	Rotuman	<i>lio-lio</i>	‘large leatherjacket, called when young <i>sum fea</i> ’ (<i>fea</i> ‘pale’)

62 Boxfishes, trunkfishes, cowfishes (Ostraciidae)

Members of this family are bottom dwellers in shallow water often around coral reefs. Normal scales have been replaced by bony plates fused into a hard box-like carapace. Mouth, eyes and fins are the only movable parts. All are extremely shy, feeble swimmers, but some are beautifully coloured. Some are reputed to have toxic flesh (Munro p.571). The next reconstruction is suspiciously similar to POc **[b^waRu]b^waRu* ‘*Balistes* taxon, triggerfish’, on page 122, but this seems due to chance, as the glosses clearly allow a separate reconstruction.

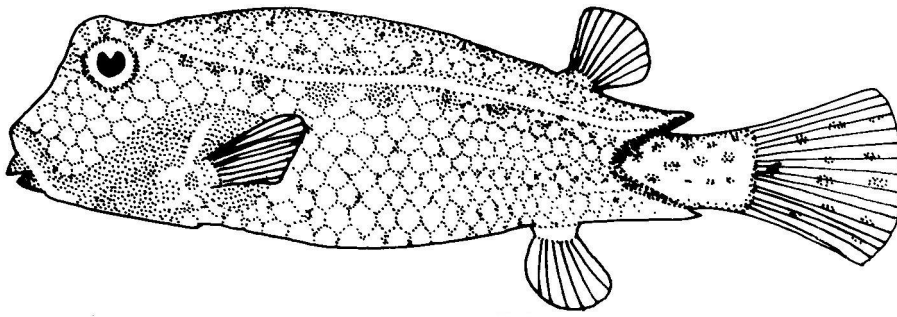


Figure 2.33 *Ostracion nasus*, shortnosed boxfish

POc **b^waReu* ‘*Ostracion*, boxfish’

PT: Misima *b^wale(loga)* ‘*Choerodon anchorago*, anchor trunkfish’

SES: Lau *k^waleu* ‘k.o. fish’

PROc **b^war(o)-*b^war(o)* ‘*Ostracion*, boxfish’ (Lynch: PSO **b^war(o)-*b^war(o)*)

NCV: Mwotlap *na-p^way-p^way* ‘*O. meleagris*, white-spotted boxfish’

NCV: Uripiv *(da)pur-pur* ‘*Ostracion*, boxfish’

PCP **g^wao-g^wao* ‘*Ostracion*’ (Geraghty)

Fij: Rotuman *kao-kao* ‘k.o. fish. When young, called *moa*’

Fij: Wayan *g^wā-g^wā* ‘generic for boxfish’

The next two reconstructions, **toqa* and **moa*, are problematic. Lynch (pers. comm.) has suggested Proto Central Vanuatu **m^watoqu* ‘boxfish, *Ostracion*’ (Paamese (*u*)*matou*, Namakir *m^wa-m^watoq*, Nguna *m^watou*) which has echoes of both. There is also the possibility of parallel development, an outstanding characteristic of this fish being its resemblance in taste and texture to chicken, PCP **moa* or **toa* (Geraghty p.166).

POc **toqa* ‘k.o. fish with toxic flesh, probably *Ostracion*’

PT: Iduna *(sisi)to?a* ‘pufferfish’

PFij **toa* ‘*Ostracion*’ (Geraghty)

Fij: Bauan *toa* ‘a round fish like the *sumu-sumu*, trunkfish or Ostraciidae’

POc **moa* ‘boxfish’

MM: Marovo *moa (idere)* ‘*Ostracion* spp., boxfish’

PNCV **m^wa(toqu)* ‘boxfish’ (Lynch pers. comm.)

NCV: Paamese (*u*)*ma(tou)* ‘boxfish’

NCV: Namakir *m^wa-m^wa(toq)* ‘boxfish’

NCV: Nguna *m^wa(tou)* ‘boxfish’

PCP **moa(moa)* ‘*Ostracion*’ (Geraghty)

Fij: Rotuman *moa* ‘young *kao-kao*’ (see above)

PPn **moa-moa* ‘Ostraciidae, boxfish’ (Hooper)

Pn:	Tongan	<i>mō-moa</i>	‘cowfish’
Pn:	Pukapukan	<i>moa-moa</i>	‘ <i>Ostracion</i> or <i>Lactoria</i> (cowfish) spp.’
Pn:	Tokelauan	<i>moa-moa</i>	‘ <i>Ostracion</i> or <i>Lactoria</i> spp.’
Pn:	Rennellese	<i>moa-moa</i>	‘generic for boxfish, coffinfish, trunkfish, cowfish’
Pn:	Samoaan	<i>moa-moa</i>	‘trunkfish, genera <i>Ostracion</i> ’
Pn:	Hawaiian	<i>moa</i>	‘k.o. trunkfish, <i>pahu</i> ’

63 Puffers, toadfishes and blowfishes (Tetraodontidae); porcupinefishes and balloonfishes (Diodontidae)

Puffers are sluggish fish which fill the belly with air when disturbed, and then float to the surface. They are feeble swimmers. Closely related are porcupine fish which are also self-inflating, but distinguished by having moveable spines on head and body. Both are bottom dwellers, and the flesh of both is toxic (Munro pp.545, 548). Although ACD glosses PMP **taRutum* as ‘porcupinefish, puffer fish, *Diodon* sp.’, the WMP and CMP reflexes listed refer only to porcupinefish, and the reference to pufferfish is no doubt to the spiny puffer, an alternative name for porcupinefish. In Ambon (CEMP) a reflex is the term for a durian and in Ponape (Mic) a term for both the fish and a soursop (also a fruit with prickles), while in languages of Borneo (Kelabit, Katingan) and the Lesser Sundas (Manggarai, Lamaholot) reflexes mean ‘porcupine’. Both emphasise the semantic connection with porcupinefish rather than the smooth pufferfish. Blust (2002:130) considers that because porcupines (the mammals) are not found in the Philippines where PMP was presumably spoken, the term’s original reference was to ‘porcupinefish’.

PMP **taRutu*[*m,ŋ*] ‘porcupinefish, *Diodon* sp.’ (ACD includes puffers)

POc **taRutu*(*m,ŋ*) ‘*Diodon* spp., porcupinefish’

MM:	Nakanai	<i>talitu</i>	‘pufferfish, blowfish’
MM:	Lihir	<i>tarut</i>	‘ <i>Diodon</i> spp., porcupinefishes (generic)’
MM:	Patpatar	<i>tarut</i>	‘French porcupinefish’
SES:	Lau	<i>au</i>	‘porcupinefish’ (shows loss of <i>R</i> before high vowels)
NCV:	Mota	<i>terit</i>	‘ <i>Diodon</i> spp.’
NCV:	Dorig	<i>trit</i>	‘ <i>Diodon holocanthus</i> , <i>D. liturosus</i> ’
NCV:	Uripiv	<i>daut</i>	‘porcupinefish’
NCal:	Nêlêmwa	<i>dot</i>	‘porcupinefish’
NCal:	Iaai	<i>kāt</i>	‘porcupinefish’

PMic **tautu* ‘porcupine fish’ (Bender et al. 2003)

Mic:	Kiribati	<i>tauti</i>	‘puffer fish, <i>Diodon</i> ’
Mic:	Puluwatese	<i>hōwi</i>	‘large growth stage of edible long-spined puffer fish’
Mic:	Carolinian	<i>sōw</i>	‘species of lagoon fish, poss. goatfish?’
Mic:	Ponapean	<i>sey</i>	‘porcupine fish; soursop, <i>Annona muricata</i> ’
Mic:	Mokilese	<i>joy</i>	‘porcupine fish’

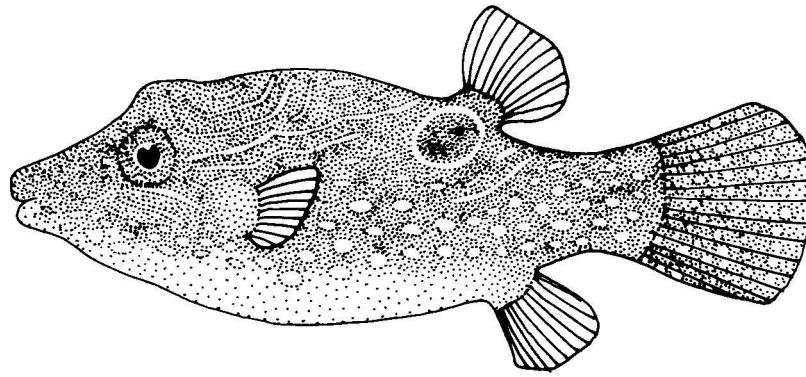


Figure 2.34 *Arothron leopardus*, leopard pufferfish

PCP **tautu* ‘*Diodon* sp.’ (Geraghty 1990)

Fij: Rotuman *faufu* ‘fish which inflates itself when caught: covered with spikes like a porcupine’

PPn **tautu* ‘*Diodon* spp., porcupine fish’ (Hooper)

Pn: Niuatoputapu *toutu* ‘adult growth stage of porcupinefish’
 Pn: E Uvean *tautu* ‘Diodontidae (no distinction of genera or species)’
 Pn: Rennellese *tautu* ‘general name for balloon fish (porcupine fish)’
 Pn: Samoan *tautu* ‘fish, *Diodon* sp., with very sharp spines’
 Pn: Tokelauan *tautu* ‘*Diodon* sp.’
 Pn: Tikopia *tautu* ‘*Diodon* sp.’

The next reconstruction is a semantic extension of POc **poto(k)* ‘thorn’ (vol.3, p.125). PCP **voto*, PPn **foto* refer to the barb of a stingray.

POc *[*poto*]*poto* ‘pufferfish, porcupinefish’

Adm: Titan (*buli*)*poto-poto* ‘porcupinefish’
 MM: Marovo *poto* ‘generic for all boxfish and pufferfish’ (*poto mariu* ‘porcupinefish, *Diodon* spp.’)
 MM: Maringe *p^ho-poto* ‘k.o. pufferfish or blowfish, such as *Arothron*’
 NCV: Mwotlap *wōt-wōt* ‘*Arothron hispidus*, porcupinefish’ [white-spotted puffer]³⁷
 NCV: Dorig *vōt-vōt* ‘*A. nigropunctatus*’ [black-spotted puffer]
 NCV: NE Ambae (*totoro*) *woto* ‘porcupinefish’
 Fij: Wayan *voto* ‘spike or spines of a fish; prickle, thorn’

PPn **foto* ‘barb of stingray’ (POLLEX) (see §66.6)

³⁷ Alex François (pers. comm.) points out that these North Vanuatu languages (+ other reflexes) unambiguously point to a sequence of vowels **u-o*, indicating Proto North Vanuatu **vutovuto*.

POc **b^woe-b^woe* ‘pufferfish’

MM:	Tabar	<i>pu-pui</i>	‘pufferfish’
SES:	Gela	<i>boe-bote</i>	‘generic pufferfish, Tetradontidae’ (- <i>t</i> - unexpected)
SES:	Longgu	<i>boe (sina)</i>	‘ <i>Diodon hystrix</i> , porcupinefish’ (<i>sina</i> ‘his/her younger sibling’)
SES:	To’aba’ita	<i>boe (ni asi)</i>	‘ <i>Arothron hispidus</i> , pufferfish’ (lit. ‘inflated thing? of the sea’)
SES:	Langalanga	<i>boe</i>	‘ <i>A. hispidus</i> ’ [white-spotted puffer]
SES:	Lau	<i>boe</i>	‘toadfish’
SES:	’Are’are	<i>poe</i>	‘puffer fish’ (<i>poe haʔu</i> ‘porcupine fish’)
SES:	Sa’a	<i>poe</i>	‘porcupine fish’
SES:	Arosi	<i>boe</i>	‘k.o. fish, very poisonous’

PNCV **bue-bue* ‘puffer fish’ (Clark 2009:87)

NCV:	Lewo	<i>pue-pue</i>	‘k.o. fish, sometimes poison, can puff itself up’
NCV:	Namakir	<i>bue-bu</i>	‘spineless puffer’
NCV:	S Efate	<i>p^wu(nopun)</i>	‘Tetradontidae, pufferfish’
SV:	Anejoñ	<i>(nu)pupou</i>	‘pufferfish’
NCal:	Fwâi	<i>fū(rehâ)</i>	‘ <i>Arothron meleagris</i> ’ [guineafowl puffer]
NCal:	Nemi	<i>p^hū(reña)</i>	‘ <i>A. meleagris</i> ’

cf. also:

Fij:	Wayan	<i>bū(tē)</i>	‘generic for some Tetradontidae, small to moderate-sized puffers’
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POc **buli* ‘pufferfish’

Adm:	Titan	<i>buli</i>	‘puffer, leatherjacket’
Adm:	Loniu	<i>p^wili</i>	‘toadfish or puffer’
Mic:	Kiribati	<i>buni</i>	‘Tetradontidae’

cf. also:

NNG:	Manam	<i>bulai</i>	‘pufferfish’
NNG:	Takia	<i>bului</i>	‘pufferfish’
NNG:	Bing	<i>bulu(luy)</i>	‘toadfish’

There is a term from Roro (PT) with form apparently cognate with PCP **jexejexe* ‘*Arothron*’, but its gloss rules out an upgrading to a POc reconstruction.

PCP **jexejexe* ‘*Arothron*’ (Geraghty)

Fij:	Wayan	<i>seke-seke</i>	‘ <i>Canthigaster margaritata</i> , ocellated puffer’
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PPn **teqe-teqe* ‘*Arothron* and *Canthigaster* spp., pufferfish’ (Hooper)

Pn:	Tongan	<i>teʔe-teʔe</i>	‘k.o. fish that inflates itself when caught’
Pn:	Rennellese	<i>teʔe-teʔe</i>	‘toadfish, balloonfish, puffers’
Pn:	Samoan	<i>tētē</i>	‘immature globe fish’
Pn:	K’marangi	<i>tētē</i>	‘ <i>Arothron stellatus</i> , starry toadfish’
Pn:	Tokelauan	<i>tētē</i>	‘ <i>A. meleagris</i> , guineafowl puffer’
Pn:	Hawaiian	<i>kēkē</i>	‘ <i>A. hispidus</i> ’ [white-spotted puffer]

cf. also:

PT:	Roro	<i>teʔe</i>	‘jellyfish’
Mic:	Chuukese	<i>sekun</i>	‘ <i>Canthigaster</i> spp., smooth puffers’

PROc **b^wakaRe* ‘porcupine fish’ (Clark 2009:93, PNCV)

NCV:	Mota	<i>p^wayare</i>	‘urchin fish’
NCV:	Vera’a	<i>p^wayar</i>	‘ <i>Diodon</i> spp.’
NCV:	Mwotlap	<i>(na-)p^wɣay</i>	‘ <i>Diodon holacanthus</i> , porcupine fish’
NCV:	Namakir	<i>b^waka</i>	‘spiny puffer’ [<i>Diodon holacanthus</i>]
NCV:	Nguna	<i>p^wakae</i>	‘ <i>Diodon hystrix</i> , spiny puffer’ [spot-fin porcupinefish]
SV:	Kwamera	<i>p^wei</i>	‘spiny puffer’
SV:	Anejoñ	<i>no-p^wɣai</i>	‘ <i>D. hystrix</i> , porcupinefish’
Mic:	Satawalese	<i>pɔkære(ŋ)</i>	‘ <i>Pleuranacanthus scleratus</i> , puffer’ [<i>Lagocephalus scleratus</i>]

cf. also:

MM:	Halia	<i>burukari</i>	‘southern puffer’
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64 Flying gurnards (Dactylopteridae)

Flying gurnards are semipelagic, with lesser powers of flight than the true flying fish. They are heavily armoured, with enormous wing-like pectorals. Essentially bottom dwellers, they are capable of short clumsy glide-like flights (Munro p.541). Geraghty (p.149) proposes PFij **lulu*, but no higher-level reconstruction has been made.

65 Remoras (Echeneidae)

Remoras (*Echeneis naucratis* and *Remora remora*), also known as suckerfish, have a modified adhesive disk on the upper surface of the head with which they attach themselves to large floating objects, frequently sharks. The Gela (SES) term for remoras is *rao-rago bagea*, literally ‘joined to sharks’. I have no POc reconstruction for remora. I noted in §4 that the Motu

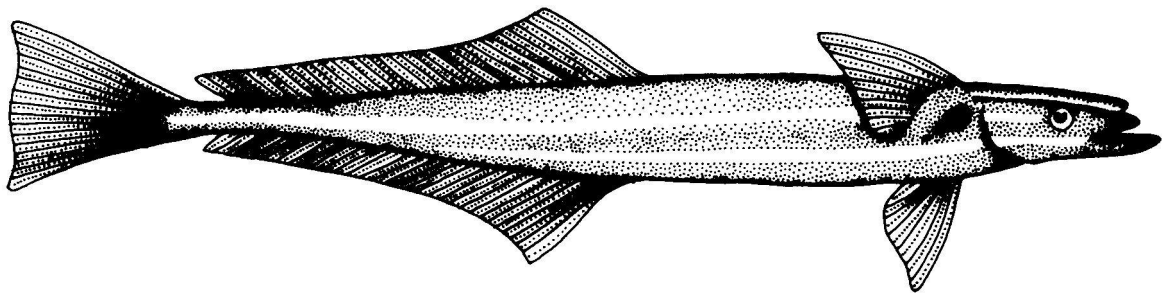


Figure 2.35 *Remora remora*

reflex of POc **majewa* ‘k.o. shark’ and the PCP reflex of **bakewa* ‘shark (generic)’ denote the remora, not the shark. Hooper (p.216) proposes PPn **tali-tali-quli* ‘*Echeneis* sp., remora, and *Naucrates ductor*, pilot fish’ with suggested etymology **tali-tali* ‘wait upon’ and **quli* ‘to steer’.

66 Fish parts

66.1 Roe

PAn **biRaS* ‘roe, fish eggs’ (ACD) (dbl. **piRa*)

POc **biRa* ‘roe, fish eggs’ (ACD: **piRa*)

NNG:	Lukep (Pono)	<i>bira</i>	‘crayfish eggs’
PT:	Dobu	<i>bila</i>	‘fish roe’
PT:	Tawala	<i>bile</i>	‘roe’
PT:	Tubetube	<i>bile(na)</i>	‘fish internals’
PT:	Gapapaiwa	<i>bire</i>	‘roe’
PT:	Hula	<i>pila</i>	‘roe’
MM:	Tolai	<i>bira</i>	‘fat’
MM:	Marovo	<i>bira</i>	‘fish eggs’
MM:	Roviana	<i>bira(na)</i>	‘the hard roe of fish’
SES:	Gela	<i>bila</i>	‘organ of a fish’
SES:	Longgu	<i>bila(na)</i>	‘fish eggs’
SES:	Lau	<i>bila</i>	‘roe of fish, yolk of egg’
SES:	Kwaio	<i>bila(na)</i>	‘roe’
SES:	Sa’a	<i>pile(na)</i>	‘roe of fish, yolk of egg; to spawn’
SES:	’Are’are	<i>pira(na)</i>	‘roe of fish’
SES:	Arosi	<i>bira(na)</i>	‘roe of a fish, yolk of an egg’
Mic:	Kiribati	<i>bia</i>	‘growth, tumor, gland, knob, excrescence, fish ovaries’ (<i>pia</i> ‘fish roe’)
Mic:	Marshallese	<i>pia</i>	‘fish roe’

cf. also:

NNG:	Mangap	<i>barā(na)</i>	‘fish roe’
Fij:	Wayan	<i>via</i>	‘fish eggs, roe’

In Bauan Fijian and some Polynesian languages fish roe are called by the literal compound ‘fish eggs’ (Bauan *yaloka ni ika*, Tongan *fua ʔi ika* etc.).

66.2 Gills

PMP **hasaŋ* ‘gills’ (Zorc 1994)

POc **qasaŋ* ‘gills’

Adm:	Mussau	<i>asaŋe</i>	‘internal gills’
Adm:	Andra	<i>aseŋa</i>	
NNG:	Gitua	<i>asana</i>	

NNG:	Lukep (Pono)	<i>kaŋana</i>	
NNG:	Yabem	<i>(ŋ)asaŋ</i>	
NNG:	Ali	<i>(s)aseŋ</i>	
NNG:	Kaiep	<i>(l)asaŋ</i>	
PT:	Motu	<i>lada</i>	
MM:	Nalik	<i>isaŋ</i>	
MM:	Tabar	<i>aca</i>	
MM:	Madak	<i>(m)aseŋ</i>	
MM:	Halia	<i>(w)esaŋa</i>	
MM:	Taiof	<i>n-esaŋ</i>	
MM:	Babatana	<i>(j)ajaŋa</i>	
MM:	Marovo	<i>asaŋa</i>	
MM:	Roviana	<i>asaŋa</i>	
SES:	Gela	<i>(s)asaŋa</i>	(retention of final consonant + echo vowel indicates probable borrowing from a NW Solomonian language)
SES:	Lengo	<i>seŋe</i>	

cf. also:

Adm:	Lou	<i>lisa-n</i>	‘red inner gills of a fish’
SES:	Sa’a	<i>laŋasi</i>	
SES:	Arosi	<i>raŋasi</i>	

POc **koro* ‘gills’

MM:	Vitu	<i>koro-koro</i>
MM:	Bulu	<i>kolo-kolo</i>
Mic:	Kiribati	<i>ō</i>
Mic:	Marshallese	<i>oŋ</i>
Mic:	Chuukese	<i>wōr</i>
Mic:	Woleaian	<i>wozo</i>

POc **gara* ‘gills’

NNG:	Mindiri	<i>gar-gara(ŋ)</i>
NNG:	Megiar	<i>(gi)gare(n)</i>
NNG:	Takia	<i>(gi)gare(n)</i>
PT:	Lala	<i>ala-ala</i>
NCV:	NE Ambae	<i>gala(vana)</i>
NCal:	Nyelâyu	<i>yāra(r)</i>

cf. also:

PT:	Kilivila	<i>gare(na)</i>	‘gill’
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PPn **lau-mea* ‘fish gills’ (**lau-* ‘external part, surface’ *mea* ‘red, reddish’) has also been reconstructed (POLLEX).

66.3 Scales

A POc verb, **qunapi*- ‘scale a fish’ can be reconstructed, and it appears that a noun **qunapi* ‘fishscales’ was derived by back-formation in POc, existing as a doublet alongside **qunap*. Polynesian reflexes of the following reconstruction refer to turtle shell as well as fish scale.

PAn **quSaNap* ‘scale of fish’ (ACD)

POc **qunap[i]* ‘fishscale’ ((Dempwolff 1938))

Adm:	Mussau	<i>unei</i>	
Adm:	Seimat	<i>uli</i>	
NNG:	Tuam	<i>anavu</i>	
NNG:	Malai	<i>anuvu</i>	
NNG:	Gitua	<i>anap</i>	
NNG:	Mindiri	<i>kunapi(n)</i>	
NNG:	Wogeo	<i>una</i>	
PT:	Duau	<i>kunaha</i>	
PT:	Diodio	<i>k^wanava</i>	
PT:	Iduna	<i>k^wanava</i>	
PT:	Tawala	<i>(we)nawa</i>	
PT:	Misima	<i>(un)una</i>	
PT:	Maopa	<i>unavi</i>	
PT:	Hula	<i>yuna</i>	(<i>yunavea</i> (VT) ‘scale fish’)
PT:	Motu	<i>una</i>	(<i>unahi</i> (VT) ‘scale fish’)
PT:	Roro	<i>una</i>	
MM:	Lavongai	<i>kunep</i>	(All the MM terms reflect <i>*k-</i>)
MM:	Tigak	<i>kunap</i>	
MM:	Kara (West)	<i>kunaf</i>	
MM:	Tiang	<i>kuna</i>	
MM:	Bola	<i>yona</i>	
SES:	Lau	<i>unafa(na)</i>	
SES:	Kwaio	<i>una-una</i>	(<i>unafia</i> ‘scale fish’)
SES:	Sa’a	<i>uneha(?a)</i>	‘fish or snake scales’
SES:	Arosi	<i>una</i>	(<i>unahi</i> ‘scale fish’)
SV:	Sye	<i>niŋevi-</i>	
SV:	Anejoñ	<i>ninehe-</i>	
Fij:	Rotuman	<i>una</i>	
Fij:	Wayan	<i>una</i>	

PPn **quna* ‘fish scale, turtle shell’ (POLLEX)

Pn:	Niuean	<i>una</i>	‘turtle shell’
Pn:	Tongan	<i>ʔuno-ʔuno</i>	‘fish scales, turtle shell’
Pn:	Samoan	<i>una</i>	(<i>una laumei</i> ‘scale of hawk’s bill turtle, i.e. tortoise-shell’)
Pn:	Pukapukan	<i>unawi</i>	‘fish scales’ (<i>una</i> ‘scale of turtle shell’)
Pn:	Tikopia	<i>unafi</i>	‘fish scales’ (<i>una</i> ‘carapace of marine turtle’)
Pn:	Hawaiian	<i>unahi</i>	‘fish scales’ (<i>una</i> ‘shell of turtle or tortoise’)

cf. also:

PT:	Sinaugoro	<i>cunave</i>	‘fish scales’
Pn:	Niuean	<i>hinafi</i>	‘fish scales, to scale a fish’

66.4 Fins

Many languages distinguish between pectoral (breast), dorsal (back), caudal (tail) and ventral (abdominal) fins. Reconstructions have been made for the first two. The reconstruction of the next etymon, POc **banic* ‘arm, hand, wing, fin (probably pectoral)’, entails some minor formal problems. All cognates reflect initial **b-* except those in the Central Papuan languages Balawaia, Motu and Mekeo, which reflect **p-*. Blust (ACD) reconstructs PMP **pani(d,j)* with either **-d* or **-j* as final consonant. The only Oceanic reflex with an etymological final consonant is Vitu *baniti-*, pointing to POc **-t* or **-c*. The most straightforward analysis is that PMP **panij* became POc **banic* by regular sound change. The final consonants of Wampur *bani-t* and Mapos Buang *bani-s* can be ignored, as they reflect a probable construct suffix found on inalienably possessed nouns in Huon Gulf languages. The POc meaning of this term had clearly been extended beyond ‘wing’ to include the pectoral fins of fish, the wings of birds and the arms of human beings.

PMP **panij* ‘wing’ (Dempwolff 1938, ACD)POc **banic* ‘arm, hand, wing, fin (probably pectoral)’

Adm:	Seimat	<i>paun</i>	‘pectoral fin’
Adm:	Wuvulu	<i>pani-</i>	‘hand’
Adm:	Aua	<i>pani-</i>	‘hand, fin’
Adm:	Kaniet	<i>pani</i>	‘wing, hand, fin’
Adm:	Nyindrou	<i>bani-n</i>	‘wing’
Adm:	Pak	<i>beni-n</i>	‘fin’
Adm:	Nauna	<i>pin</i>	‘wing’
Adm:	Mondropolon	<i>pani-n</i>	‘wing’
Adm:	Drehet	<i>peni-ŋ</i>	‘wing’
NNG:	Gedaged	<i>bani-n</i>	‘fin, wing’
NNG:	Takia	<i>bani-</i>	‘forelegs, hand, arm’
NNG:	Kairiru	<i>panin</i>	‘fin’
NNG:	Tumleo	<i>pain</i>	‘fin’
NNG:	Wampur	<i>bani-t</i>	‘wing’
NNG:	Mapos Buang	<i>bani-s</i>	‘fin, wing’
PT:	Gumawana	<i>pane-pane(na)</i>	‘fish fins, bird’s wing’
PT:	Balawaia	<i>vane</i>	‘wing, fin’ (for † <i>bani</i>)
PT:	Motu	<i>hani</i>	‘fin, wing’ (for † <i>bani</i>)
PT:	Mekeo	<i>pa-pani</i>	‘wing-like object, incl. fins’ (for † <i>bani</i>)
MM:	Vitu	<i>baniti-</i>	‘wing, upper arm’
NCV:	Mota	<i>paneī, panīu</i>	‘hand and arm, wing, pectoral fin, pig’s shoulder’
NCV:	Merlav	<i>bani</i>	‘wing’
NCV:	Atchin	<i>na-mben</i>	‘wing, sail, armlet’
NCal:	Iaai	<i>beñi-n</i>	‘hand, arm, fin’

		<i>la-beñi-n</i>	‘wing’
Mic:	Marshallse	<i>pā</i>	‘arm, hand, wing, fin’
Mic:	Carolinian	<i>pp^wan</i>	‘pectoral fin and attached bone of fish’
Mic:	Ulithian	<i>pal</i>	‘ventral fin; hand’

POc **kaba* (N) ‘wing’, (v) ‘flap wings’ (this volume, p.275) may be reduplicated to refer to the action of flapping back and forth, and in Polynesian languages this meaning is extended to include the action of fins, flippers and wings together with the name of the bodypart. Similarly, a number of Papuan Tip languages, Gumawana *pane-panena*, Molima *pape*, Wedau *papena* and Mekeo *pa-pani* use terms unrelated to **kaba-kaba* to refer to both a bird’s wing or its flapping action and for a fish fin/turtle flipper.

PEOc **kaba-kaba* ‘to flap the wings’

SES: Lau *ʔaba-ʔaba* ‘to flap the wings’

PPn **kapa-kapa* (1) ‘lateral fins’, (2) ‘flap wings’ (POLLEX)

Pn: Tongan *kapa-kapa* ‘flap the wings, side fin’

Pn: Rennellese *kapa-kapa* ‘flippers, as of turtle, stingray, whale; base of fish fins’

Pn: Samoan *ʔapa-ʔapa* ‘fin’ (*ʔapa* ‘to beat, of bird’s wing, turtle flipper etc.’)

Pn: Pukapukan *kapa-kapa* ‘fin of fish, wing of bird, claw of turtle, arm of baby’

Pn: Tikopia *kapa-kapa* ‘pectoral fins; to flap, of wings’

Pn: Tokelauan *kapa-kapa* ‘of sharks, stingray, turtle etc., lateral fin, flippers’

cf. also:

MM: Tinuputz *kevā* ‘fish fins’

Pn: Tongan *kapo(ŋa)* ‘back fin’

The following is a variant of the same word.

PMP **kapi-kapi* ‘fin’ ³⁸

POc **kapi-kapi* ‘pectoral fins’

NNG: Labu *hi* ‘fish fin’

MM: Marovo *kapi-kapi* ‘pectoral fins’

Alternatively, a reflex of POc **taliŋa* ‘ear’ is sometimes used to refer to a pectoral fin.

POc **taliŋa* ‘pectoral fins’ (semantic extension of **taliŋa* ‘ear’)

Adm: Mussau *(ū-)taliŋa* ‘external gills’ (lit. ‘feather + ear’)

PT: Motu *taia* ‘gill fins of fish’

SES: Kwaio *aliŋa(na-iʔa)* ‘fish fin’ (lit. ‘ear of fish’)

NCV: Mwotlap *delŋe* ‘pectoral fins’

Fij: Rotuman *faliŋa* ‘pectoral fins’

³⁸ WMP Kagayanen *kapi-kapi* ‘fin’ (dorsal), Murut *ka-kapi* ‘ventral fin’, Javanese *kepēt* ‘fin’ and Balinese *kepes* ‘fin (generic)’ (CAD) support reconstruction of PMP **kapi-kapi* ‘fin’.

PMP **siRik* ‘dorsal fin’³⁹POc **siRiko* ‘fish fin’

MM:	Nakanai	<i>siliko-liko</i>	‘fins’
NCV:	Uripiv	<i>siki</i>	‘fin’
Fij:	Wayan	<i>siko-silo</i>	‘fin’

cf. also:

Mic:	Ponapean	<i>sike</i>	‘top and bottom fins of a fish’ (s for †t)
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PMic **iŋi* ‘dorsal fin’ (Bender et al. 2003)

Mic:	Sonsorolese	<i>iŋi</i>	‘generic fin’
		<i>iŋi ri varø</i>	‘ventral fin’
		<i>iŋi ri waor</i>	‘dorsal fin’
Mic:	Woleaian	<i>iŋi</i>	‘fin of fish’
Mic:	Mortlockese	<i>yīŋ</i>	‘dorsal fin’
Mic:	Carolinian	<i>iŋi(l)</i>	‘dorsal fin’
Mic:	Puluwatese	<i>yīŋ</i>	‘dorsal fin’

PWOC **sio(R,r)a* ‘fish fin’

PT:	Kilivila	<i>siola</i>	‘fin’
MM:	Babatana	<i>si-sioro</i>	‘fins of fish’

66.5 Fish gullet

The next POc reconstruction has general reference to ‘middle’, its meaning narrowing to fish gullet only at PPn level.

PMP **kempuŋ* ‘abdomen, belly’ (Dempwolff 1938)POc **kobu(ŋ)* ‘middle, waist, belly’

SES:	Gela	<i>obu</i>	i) ‘the middle’; ii) ‘waist of a man’
SES:	Sa’a	<i>upu-upu</i>	‘middle, waist, a swelling’
SES:	Arosi	<i>ubu(na)</i>	‘middle’

PPn **kōpū* ‘fish gullet’

Pn:	Tongan	<i>kōpū</i>	‘fish gullet’
Pn:	E Futunan	<i>kōpū</i>	‘fish gut’
Pn:	Tokelauan	<i>kōpū</i>	i) ‘throat’; ii) ‘(fish) gut, stomach’
Pn:	Māori	<i>kōpū</i>	‘belly, womb’
Pn:	Hawaiian	<i>ōpū</i>	‘gizzard, maw of animal, crop of bird’

³⁹ WMP cognates: Palauan and Molbog *sirik*, Minangkabau and Bugis *siri?*, all ‘(dorsal) fin’ (Tryon 1995) support reconstruction of PMP **siRik* ‘dorsal fin’.

66.6 Barb of stingray

Reflexes of POc **poto(k)* ‘thorn’ (vol.3, p.125) have come to refer to the spike or spines of a fish in Wayan Fijian and the barb of a stingray in Polynesian languages.

PCP **voto* ‘thorn, prickle; spike or spines of a fish’

Fij:	Rotuman	<i>hofu</i>	‘sting or piercer of stingray’
Fij:	Wayan	<i>voto</i>	‘spike or spines of a fish’

PPn **foto* ‘barb of stingray’

Pn:	Tongan	<i>foto</i>	‘barb of stingray’
Pn:	Niuean	<i>foto</i>	‘thorn, barb, spike, bristle’
Pn:	E Futunan	<i>foto</i>	‘barb of stingray’
Pn:	Rennellese	<i>hoto</i>	‘barb, as on a stingray’s tail’
Pn:	Samoaan	<i>foto</i>	‘barb of stingray’
Pn:	Māori	<i>hoto</i>	‘barb of stingray’

67 Conclusion

In this chapter I have reconstructed around 145 Proto Oceanic names for fish spread across approximately eighty families. All reconstructions bar one are uninomials, the only binomial reconstructable to POc level being **paRi-manuk* ‘*Aetobatis narinari*, spotted eagle ray’. Uninomials can refer to fish at the family, genus or species level, and in the case of sharks (**bakewa*) and rays (**paRi*), at the level of suborder. In a number of cases I have been able to identify a reconstruction as a generic. Examples include **bakewa* ‘sharks’, **paRi* ‘ray’, **saku* ‘needlefish’, **taRaqa* ‘squirrelfish’, **kanase* ‘mullet spp.’, **tuna* ‘fresh water eels’, **qonos* ‘*Sphyræna*, barracudas’. Generics may form the headword in a binomial subsuming two or more species, or may simply be used to include two or more subtaxa. Another kind of generic is that illustrated by **bebek* ‘generic for butterflyfish, coralfish’, which is simply a lumped category with no sub-taxa. In some instances it has been possible to link a reconstruction to a particular species. However, for the majority of reconstructions it has only been possible to allocate an identity at the level of genus or family. Undoubtedly, POc fish nomenclature would have included scores of binomials, commonly at the level of species. My inability to reconstruct them is due partly to lack of detail in wordlists, but also to the likelihood of species variability across the region together with the apparent tendency of binomials to be local innovations. Most languages also have terms, usually binomial, for categories that cut across Linnaean categories, grouping fishes by functional criteria rather than by morphology or behaviour. Satawal, for instance, has taxa which identify such categories as flying fish, jumping fish, unpalatable fish, fish prohibited for women and children to eat, fish prohibited for pregnant and menstruating women, fish given preferentially to the chief, and fish that follow driftwood (Akimichi & Sauchomal 1982:25–6). Such terms also tend to be local innovations. Andrew Pawley has argued that Proto Oceanic probably had around 400 terms for fish (this volume, ch.3). The substantial number of reconstructions that exist for Proto Central Pacific and Proto Polynesian is largely due to the work of Paul Geraghty and Robin Hooper, building on Biggs & Clark (1993). Although Western Oceanic has far more languages than PCP, we have few wordlists from there which provide good descriptions of fish nomenclature. With the addition of more detailed wordlists from Western Oceanic languages, it should

be possible for researchers not only to reconstruct more terms, but to further refine the glosses for those we have.

3 *Patterns of stability and change in Oceanic fish names*

ANDREW PAWLEY

1 Introduction

Some years ago, in a paper reconstructing Proto Polynesian (PPn) fish names, Robin Hooper suggested that ‘fishing terms and fish names are good candidates for inclusion in core vocabulary lists for Polynesian languages’ (Hooper 1994:187-8).¹ She meant that names for kinds of fish and fishing methods may prove to be as stable as words in standard basic vocabulary lists, such as the Swadesh 100 and 200 word lists. Stability in the lexicon can be defined, operationally, in terms of retention rates of particular etyma in daughter languages. Her suggestion rested on the observations that Polynesian fish names ‘reveal a high degree of uniformity and semantic correspondence ... , which is attributable to a comparative uniformity in the ichthyological fauna of the tropical South Pacific’ (Hooper 1994:186) and that in Polynesian communities fishing has great economic and cultural importance. Hooper did not undertake a close statistical analysis of retention rates for fish names or other fishing terms but her remarks invite such a study.

In this chapter I will investigate the stability of 52 of the 140 or so fish names that have been reconstructed to the level of Proto Oceanic (POc), a language spoken more than 3000 years ago. Examination of a sample of contemporary Oceanic languages shows that POc names for some fish taxa have been extremely persistent, others have been much less so, and yet others occupy the middle ground. This leads to the question: Why have some names been much more (or less) stable than others?

I will also draw on evidence from contemporary languages to estimate the total number of fish names likely to have been used by speakers of POc. Osmond (this volume, ch. 2)

¹ I dedicate this paper to the memory of Phil Quick, whose research on the Pendau language of Sulawesi included detailed study of Pendau fish names and fishing knowledge (Quick 2005, 2010). I am indebted to Meredith Osmond for carefully checking the details of all the tables and for thorough-going critical commentary on an earlier draft, and to Malcolm Ross for helpful comments.

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reconstructs some 145 POc names for fish taxa, of which 140 look to be well attested in terms of having reflexes distributed across more than one primary subgroup. Hooper (1994) reconstructed 115 fish names for PPn, and for Proto Nuclear Polynesian, a stage ancestral to all Polynesian languages except Tongan and Niuean, she reconstructed 147. Geraghty (1994) was able to recover some 150 secure terms for Proto Central Pacific, the immediate ancestor of Polynesian, Fijian and Rotuman.

Comparative analysis of contemporary lexicons for fishing communities speaking Oceanic languages and exploiting environments comparable to those of the Bismarck Archipelago, the probable location of POc, indicates that speakers of POc probably distinguished on the order of 400 names for kinds of fish. In that case the total of about 140 fish names so far reconstructed for POc represents about a third of the total. The question arises why so many names are missing from the reconstructed inventory.

1.1 On the distribution of fish families, genera and species in the Pacific

R.H. Carcasson writes as follows of the fish fauna of the tropical Indo-Pacific region:

A surprisingly high proportion of Indo-Pacific species occur throughout the area; the Central Indo-Pacific, consisting roughly of the Malay Archipelago, the Philippines and New Guinea, has a richer fauna than any other part of the Region and has probably been the principal evolutionary centre from which the entire Indo-Pacific has been populated. As one moves away from this area, the fauna becomes progressively impoverished... (Carcasson 1977:13).

More than 150 families of fish occur in the Indo-Pacific region. Although the number of genera and species declines as one moves eastwards from New Guinea and the Bismarck Archipelago, the dominant families (those with most species, e.g. the wrasses, groupers, trevallies and jacks, damselfishes, cardinalfishes, surgeonfishes, gobies and moray eels) are present throughout the region.

The Bismarck Archipelago, the probable location of the POc speech community, is richer in marine life than any other region in the South Pacific apart from New Guinea. The coral reef systems of this region support several thousand species and several hundred genera.

1.2 The location and dating of Proto Oceanic

As we are concerned with retention rates of POc lexical items it is relevant to ask what time span is involved. The breakup of POc can be dated with considerable confidence to between 3400 and 3100 BP. POc was almost certainly spoken in the Bismarck Archipelago, where the greatest concentration of primary subgroups of Oceanic is found today. Dating of its breakup to within a span of two or three centuries is possible because of the strong association between the appearance in the Bismarck Archipelago and subsequent spread across the SW Pacific of the highly distinctive archaeological culture known as Lapita and the initial diversification of Proto Oceanic within the Bismarcks and the subsequent spread of Oceanic languages across the SW Pacific (Green 2003, Kirch 1997, 2000, Pawley 2003, 2007, 2008, Spriggs 1997, Summerhayes 2001).

The latest critical reviews of C14 dates indicate that Lapita appeared in the Bismarcks around 3400–3450 BP (Specht 2007). By 3200–3100 BP bearers of this culture had settled the Reefs-Santa Cruz group, east of the main Solomons group (Green 2003, Green et al.

2008), and by about 3000 BP or earlier they had occupied Vanuatu (Bedford 2003, 2006), New Caledonia (Sand 2003) and Fiji (Nunn et al. 2004, Clark and Anderson 2009). By 2900 Lapita populations were present in the southern part of the Tongan group (Burley and Connaughton 2007) and by 2800–2700 they were in Samoa and the small islands between Tonga and Samoa: Futuna, Uvea (Wallis) and Niuauputapu (Clark and Anderson 2009).

The carriers of Lapita material culture were, almost certainly, the first people to settle the Reefs-Santa Cruz group, Vanuatu, New Caledonia, Fiji and western Polynesia. Given that all these regions were occupied within 300–600 years of the first appearance of Lapita in the Bismarcks, we would expect that their first colonists spoke forms of Oceanic that were not greatly differentiated from their common ancestor, Proto Oceanic.²

2 Methodological preliminaries

Before proceeding to an analysis of the data on fish names we should consider some methodological issues.

2.1 Data sources

The descriptions available on fish names and taxonomies in Oceanic languages are very uneven in quality and quantity. Although there are reasonably good general dictionaries for about 50 of the 450 or so languages in the Oceanic group only a handful provide something close to a comprehensive list of fish names together with scientific identifications and information about the indigenous taxonomy. In addition there are a few published papers and unpublished works that provide fairly extensive data. The statistical data cited in this paper are based on materials from a sample of 15 Oceanic languages plus a non-Oceanic language of Micronesia, Palauan, and a Malayo-Polynesian language of Sulawesi, Pendau (see Table 3.1).

2.2 On taxonomies and nomenclatures

2.2.1 Folk taxonomies

The core of a folk taxonomy is a set of named categories (taxa) that form a semantic hierarchy in which all taxa are related by virtue of being included in a higher order category or by virtue of including lower order taxa. A term that includes two or more named subtaxa is a *generic* taxon. There may also be *covert* taxa, conceptual categories whose unity is indicated by other means than sharing a class name. For example, for many English speakers horses, zebras and donkeys form a covert category (horse-like animals), as do dogs and wolves. A distinction needs to be made between the core categories in the taxonomic hierarchy and other kinds of categories that crosscut these, e.g. ecological categories, like ‘fish of the reef’ vs ‘fish of the deep sea’, and functional categories, like ‘poisonous fish’.

² For example, the Proto Central Pacific (PCP) dialect complex, immediately ancestral to the Fijian and Polynesian languages and Rotuman, can be equated with the first couple of centuries of Lapita settlement in Fiji. PCP retained about 91 percent of POc basic vocabulary on a 200 item list (Pawley 2010).

Table 3.1 Details of languages cited (all Oceanic except Palauan and Pendau)

Name	Location	Subgroup	Main source
Arosi	Makira, eastern Solomons	SE Solomonic	Fox 1978
Gela	Florida, central Solomons	SE Solomonic	Foale 1998
K'marangi	atoll south of the Carolines	Polynesian	Lieber and Dikepa 1974
Kiribati	atoll chain, Kiribati	Micronesian	Thaman & Tabano n.d.
Lau	Malaita, SE Solomons	SE Solomonic	Fox 1974, Akimichi 1978
Marovo	New Georgia, W Solomons	NW Solomonic	Hviding 1990, 1996, 2005
Marquesan	Eastern Polynesia	Polynesian	Lavondès 1977
M'bunai Titan	Admiralty Islands, PNG	Admiralties	Akimichi & Sakiyama 1991
Motu	Central Province, PNG	Papuan Tip	Oram n.d.
Mutu (Mandok)	Vitiaz Straits, PNG	North New Guinea	Pomponio n.d.
Niuaotuputapu	small high island, W Polynesia	dialect of Tongan	Dye 1983
Palauan	Western Carolines	Malayo-Polynesian	Helfmann & Randall 1973
Pendau	Central Sulawesi	Malayo-Polynesian	Quick 2005, 2010
Satawalese	Central Carolines	Micronesian	Akimichi & Sauchomal 1982
Teop	NE Bougainville, PNG	NW Solomonic	Shoffner 1976
Uvean (Wallisian)	high island, W Polynesia	Polynesian	Rensch 1983
Wayan	small high island, W Fiji	Fijian	Pawley & Sayaba 2003

2.2.2 Uninomials vs binomials

An important distinction is between *uninomial* and *binomial* names, sometimes called primary and secondary terms. Uninomials are names that are either a single morpheme (*oak*, *pine*, *apple*) or are multimorphemic but with meanings that are idiomatic (*she-oak*, *screw pine*). A *screw pine* (pandanus) is not a kind of pine, and a *she-oak* (casuarina) is not a kind of oak. Binomials consist of a uninomial term plus a modifier, where the uninomial names the class and the modifier distinguishes members of the class (i.e. a *white pine* and *redwood pine* are kinds of pine, and *white pointer shark* and *hammerhead shark* are kinds of shark). Uninomials typically name taxa at the level of what Berlin (1992) calls 'folk generics'. These are taxa that belong to a particular major generic or 'life form' such as 'fish', 'bird' and 'tree' and which themselves may contain subtaxa that are designated by binomials.

Binomials provided by native speakers need to be viewed with some caution. When informants are asked to name or discriminate between specimens they sometimes offer *ad hoc* descriptions, such as 'spotted X', or 'red X', which the investigator may mistake for genuine conventional names. Independent checks with a range of informants are desirable but not always possible.

2.3 On counting the units in a taxonomy

Counting the number of lexical units in a folk taxonomy is not completely straightforward. There are several ways of counting members, which give different results. First, one can count the *total number of terms* that represent taxa. Each formally distinct term is counted separately even if it has synonyms, e.g. Australian English *chook*, *fowl*, and *chicken* 'domestic

fowl, *Gallus gallus*' count as three terms. Second, one can count just the number of *contrasting taxa*, in the sense of distinct conceptual categories, treating as a single taxon any set of referential synonyms (i.e. two or more terms that have the same referential meaning). In this case, for some English speakers the three terms *chicken*, *fowl* and *chook* would represent one taxon. In this study totals generally refer to the number of distinct terms for fish taxa provided by each source, because it is not always possible to identify synonyms in a list of names.

Another variable is names for growth stages. For certain species in several groups (e.g. barracuda, eels, groupers, wrasses, mullet, trevally, sharks) Oceanic languages commonly distinguish two or more growth stages. In this study I follow the standard practice of treating each name for a growth stage as representing a distinct taxon.

Yet another variable is polysemy. Some terms have two senses, one referring to a more specific category, another to a more general one (e.g. *cat* can refer to the domestic cat, *Felis felis*, or more broadly to any member of the cat family (*lion*, *tiger*, *cheetah*, etc.) In this study generic and specific senses of fish names are not counted separately, chiefly because we lack reliable data on such sense differences for most languages.

2.4 Semantic reconstruction

Hooper (1994:189) points to the kinds of difficulties met in attributing meanings to reconstructed fish names. The comparative linguist is dependent on the quality of the definitions available in accounts of contemporary languages and on the measure of agreement between them. Usually it is possible to pin down the meaning of a reconstructed form to a family or a group of closely related families, e.g. 'kind of rock-cod (Serranidae)' or 'kind of snapper (Lutjanidae) or emperor (Lethrinidae)'. In a minority of cases it can be said with considerable confidence that a name referred to a particular species or group of closely related species, or to a growth stage of a species or genus.

2.5 On formulating hypotheses about whether fish names show similar retention rates to basic vocabulary

Hooper (1994) presents a brief statistical argument that Polynesian uninomial fish names, overall, show retention rates similar to those exhibited by etyma whose meanings belong to standard lists of basic vocabulary. She reconstructs 115 PPn fish names for generic and specific taxa, of which only three are binomials. She notes that if we compare the 112 PPn uninomials with lists for Uvean (Rensch 1988), Niuatoputapu (Dye 1983) and her own list for Tokelauan we get impressively high retention rates. The rates are about 66% for Uvean (74 retentions), 61% for Niuatoputapu (68 retentions) and 84% for Tokelauan (94 retentions). Hooper adds that '[if] we hypothesize that the Proto Polynesians, like their present-day descendants, used a vocabulary of about 130 monomial [uninominal] fish names, the retention rates are more plausible: 60% for Uvean, 52.2% for Niuatoputapu, and 72.3% for Tokelauan – close to the expected average retention rate of 70% for core vocabulary' (Hooper 1994:187).

There are certain problems with this proposal. First, Hooper does not say how the 'expected' average retention rate of 70% for contemporary Polynesian languages was arrived at. It was presumably based on work in glottochronology indicating that, on average, languages will replace about 20 percent of words on the 200 item Swadesh list per 1000 years. An estimate of 30 percent replacement would make sense on the assumption that PPn broke up around 1400 years ago. This estimate is reasonable as a latest possible date of PPn breakup.

Second, Hooper's assessment of average retention rates for fish names is based on just those 112 uninomials that have been reconstructed for PPn. These etyma will be a subset of the total number of fish names used in PPn (less stable names will not have been recovered). How small a subset is 112? For reasons indicated in §4, I estimate the number of uninomials in PPn to be more than 200. To take the case of Uvean, 74 retentions out of 200 would equate to a retention rate of 37 percent, still substantial but much less than 66 percent. Third, in some cases semantic matches between PPn fish names and their reflexes are not exact, e.g. the POc generic term for 'shark' is continued in some daughter languages by a term that refers to the Remora or sucking fish, which attaches itself to sharks. In standard glottochronological procedure, a form that continues a proto-language etymon but changes the meaning is not counted as a retention. In the case of PPn fish names that refer to particular families, genera or species, a reasonable compromise would be to count a reflex as retained in a daughter language provided that it refers to the same biological family as the etymon in the proto-language.

There is, however, a more fundamental concern. Even a comparison of the average retention rates of PPn fish names with that of basic vocabulary will not leave us much the wiser. This is because the individual meanings in the basic vocabulary list do not share a constant retention rate. On the contrary, there is enormous variation in the rates at which forms representing different meanings are replaced. A comparative study of Austronesian languages (Dyen et al. 1967) indicates that, over a span of several millennia, the least persistent item on the Swadesh 200 item basic vocabulary list is many times more likely to be replaced than the most persistent item.

Using a 196 item meaning list Dyen et al. compared 89 Austronesian languages and calculated cognation rates over the total set of language pairs. The languages were drawn from diverse subgroups, most of them belonging to the Malayo-Polynesian subgroup, to which 98 percent of Austronesian languages belong. It was found that 10 meanings on the list show cognation rates of between 50 and 80 percent. Forty-two meanings have rates exceeding 20 percent. Only 70 meanings have rates of more than 10 percent. As many as 105 meanings show cognation rates of less than seven percent and 43 of these score below three percent.³

Admittedly, cognation rate and retention rate in basic vocabulary are not the same thing. The former is a measure of how often pairs of languages have cognate words for a given meaning on the list. The latter is a measure of how often a given reconstructed etymon is retained with the same meaning. But cognation rate in Dyen et al's study will generally be a fairly accurate indicator of retention rate. For example, if a meaning, say 'louse', shows a

³ Why do basic vocabulary items vary so markedly in cognation rates? Differences in frequency of use in discourse may be an important part of the answer but it cannot be the whole answer. Indeed, forms for the 'verb' meaning that is most frequent in spoken discourse in most languages of the world, 'say', have a cognation rate of less than one percent in the study by Dyen et al., while forms for the less frequent 'die' and 'eat' score about 60 percent. The meaning 'vomit' (22%) scores higher than 'come' (15%) and 'live' (9%), although the latter cross-linguistically are much more frequent. Why do terms for 'louse', with a cognation rate of 71 percent, rank in the top five, while 'man' (10.5%) and 'woman' (13.8%) both fail to make the top 50? Why is 'blood' among the most stable items (27th in rank, cognation rate 27.8%) while 'water' is a good deal less stable (59th, with 12.3%)? Malcolm Ross (pers. comm.) suggests that where the denotatum of a basic vocabulary term is conceptually sharply distinct from other denotata, in a way that is common cross-linguistically, as is the case with 'die', 'vomit' 'louse' and 'blood', the term will have a high retention rate. But where the denotatum belongs to a set of denotata encoded by a set of conceptually overlapping terms, as is the case with 'say' (cf 'speak', 'talk', 'tell', 'inform' etc.), the retention rate will be low.

high cognation rate it is almost certainly represented by an etymon (in this case, **kutu*) that was present in a proto-language ancestral to most or all 89 languages in Dyen et al.'s sample and that has been continued by a high proportion of daughter languages.

Retention rates for what are approximately the most stable 60 items of POc basic vocabulary in a modified Swadesh list were presented in Pawley (2009). Retentions and replacements were recorded in a sample of 40 present-day Oceanic languages. Retention rates for individual items ranged between 97 and 23 percent. Each of the 24 most persistent POc etyma were retained by 70 percent or more languages, 44 etyma were retained by 50 percent or more languages, 54 by 40 percent or more, and 60 by 23 percent or more.

Given that individual basic vocabulary items vary so much in their retention rates, there is little point in asking whether POc fish names in general show retention rates similar to basic vocabulary in general. We need to ask questions sensitive to the variable retention rates of individual lexical items. First, retention rates needed to be determined for a sample of POc fish names. Then it will become possible to make comparisons with the rates established for the 60 most POc etyma in the modified Swadesh basic vocabulary list. We can ask, for instance, how many fish names have a higher retention rate than the 20th, or 40th, or 60th most stable etymon in the basic vocabulary list.

3 Retention rates for POc fish names

3.1 Investigating retention rates for a sample of POc fish names

Retention rates for 52 POc fish names, drawn from Osmond's list of reconstructions, were investigated in 12 languages belonging to diverse subgroups: Titan (Admiralties group), Mutu (North New Guinea), Motu (Papuan Tip), Marovo and Teop (Meso-Melanesian), Gela (Guadalcanal-Gelic), Arosi and Lau (Makira-Malaitan), Kiribati and Satawalese (Micronesian), Wayan (Fijian) and Niuatoputapu (a dialect of Tongan, Polynesian).

Between them, the 52 POc names represent a wide range of fish families. In Osmond's data each of the 140 secure reconstructions is well attested by cognate sets drawn from diverse subgroups. In my sample not all reconstructions are well attested: whereas Osmond was in some cases able to draw on cognates from scores of languages, my sample consists of just 12.

For convenience of presentation the 52 POc names are divided into four groups. Tables 3.2-3.5 show the presence (y) or absence (–) of reflexes of each etymon in the 12 contemporary languages. A question mark, accompanied by an explanatory footnote, indicates doubt as to whether the form should be counted as a reflex of the etymon. The columns showing the number of retentions ('no. retentions') and the percentage of languages that reflect the etymon then show alternate figures, one not counting, the other counting the doubtful reflex.

Table 3.2 Presence/absence of reflexes of POc fish names in twelve languages (1)

<i>*ikan</i>	'generic for fish (and certain other free-swimming aquatic creatures)'													
<i>*bakewa</i>	'generic for sharks'													
<i>*paRi</i>	'generic for rays'													
<i>*tuna</i>	'generic for freshwater eels (Anguillidae)'													
<i>*qawaq</i>	'milkfish, <i>Chanos chanos</i> (Chanidae)'													
<i>*saku</i>	'needlefish and long toms (Belonidae)'													
<i>*qonos</i>	'mature <i>Sphyræna</i> spp., possibly generic for all barracuda													
<i>*qalu</i>	'taxon of barracuda (Sphyrænidae)'													
<i>*taŋiRi</i>	'Scombridae spp., probably incl. Spanish mackerel and wahoo'													
<i>*qatun</i>	'skipjack tuna, <i>Katsuwonus pelamis</i> , (Scombridae)'													
<i>*walu</i>	'Scombridae sp. or spp.'													
<i>*saku-layaR</i>	'sailfish (Istiophoridae)'													
<i>*sabutu</i>	'snapper (<i>Lutjanus</i>) or emperor (<i>Lethrinus</i>) sp. or spp.'													

	Titan	Motu	Mutu	Teop	Marovo	Gela	Lau	Arosi	Wayan	Niuatoputapu	Kiribati	Satawalese	no. retentions	percentage
<i>*ikan</i>	y	—	y	—	y	y	y	y	y	y	y	y	10	83
<i>*bakewa</i>	y	y ⁴	—	y	—	y	y	y	—	—	y	y	8	67
<i>*paRi</i>	y	—	—	—	y ⁵	y	y	y	y	y	? ⁶	y	8–9	67/75
<i>*tuna</i>	—	—	y	—	—	—	—	—	y	y	—	—	3	25
<i>*qawaq</i>	—	—	y	—	—	y	—	— ⁷	y	y	y	y	6	50
<i>*saku</i>	—	—	—	—	—	—	—	—	y	y	— ⁸	y	3	25
<i>*qonos</i>	—	y	—	—	—	y	y	y	— ⁹	y	—	—	5	42
<i>*qalu</i>	y	—	—	—	—	y	—	—	—	—	—	—	2	17
<i>*taŋiRi</i>	y ¹⁰	—	y	y	y	— ¹¹	—	— ¹²	—	—	y	y	6	50
<i>*qatun</i>	—	—	—	y	—	y	y	y	y	y	y	y	8	67
<i>*walu</i>	—	y	—	—	—	— ¹³	—	—	y	y	—	—	3	25
<i>*saku-layaR</i>	y	—	—	—	—	—	—	—	y	y	? ¹⁴	y	4–5	33/42
<i>*sabutu</i>	—	y	—	—	—	—	—	—	y	y	—	—	3	25

⁴ *mayoa* for †*bayewa*.⁵ Only example is *vari-popolo* 'bull ray, *Mylobatus*'.⁶ *baimanu* 'devil-headed manta ray' for †*aimanu*. Borrowed?⁷ Arosi has *sawa* 'mullet' (confusion with reflex of **(k,q)aRua?*).⁸ *raku* 'swordfish' for †'needlefish'.⁹ Wayan has *ono* '*Lienardella fasciata*, harlequin tuskfish (Labridae)'.¹⁰ *taŋini* for †*taŋi*.¹¹ Loss of first syllable. *ili* for †*taŋili*.¹² Wrong meaning: 'shoal of porpoises'.¹³ Changed meaning: *alu* 'barracuda' not 'Scombridae, possibly Spanish mackerel'.¹⁴ Only first part cognate in compound *raku-riri* 'Pacific sailfish'. *raku* generic for Istiophoridae and Xiphiidae.

Table 3.3 Presence/absence of reflexes of POC fish names in twelve languages (2)

* <i>kulabo</i>	‘snapper sp. or spp. (Lethrinidae)’
*(<i>ñ,n</i>) <i>opuq</i>	‘stonefish, <i>Synanceia</i> spp., incl. <i>S. verrucosa</i> (Synanceiidae)’
* <i>taRaqa</i> n	‘squirrelfish, <i>Sargocentron</i> sp. or spp. (Holocentridae)’
* <i>jumu</i>	‘triggerfish (Balistidae) and possibly leatherjackets (Monacanthidae)’
* <i>bebek</i>	‘generic for butterflyfish and coralfish (Chaetodontidae)’
* <i>kuRapu</i>	‘rock-cod, <i>Epinephelus</i> sp. or spp. including <i>E. lanceolatus</i> , Queensland grouper (Serranidae)’
* <i>palaja</i>	‘rabbitfish, <i>Siganus</i> spp. (Siganidae)’
* <i>laci</i>	‘ <i>Scomberoides</i> spp., incl. <i>S. lysan</i> (Carangidae)’
* <i>qulua</i>	‘ <i>Caranx</i> sp., possibly <i>C. ignobilis</i> , big-headed jack (Carangidae)’
* <i>pilu</i>	‘ <i>Caranx</i> sp. or spp. (Carangidae)’
* <i>qatule</i>	‘scad spp. (Carangidae), incl. <i>Trachurops crumenophthalmus</i> , big-eyed scad’
* <i>taRutu(m,ŋ)</i>	‘porcupinefish, <i>Diodon</i> spp. (Diodontidae)’
* <i>kanase</i>	‘generic for certain mullet (Mugilidae)’
* <i>bunaR</i>	‘batfish, <i>Platax</i> sp. (Platacidae)’
* <i>tiqo</i>	‘goatfish sp. (Mullidae)’

	Titan	Motu	Mutu	Teop	Marovo	Gela	Lau	Arosi	Wayan	Niutoputapu	Kiribati	Satawalese	no. retentions	percentage
* <i>kulabo</i>	y	–	–	–	–	–	–	–	– ¹⁵	y	–	–	2	17
*[<i>n,ñ</i>] <i>opuq</i>	y	y	y	y	y	y	–	? ¹⁶	y	y	y	y	10-11	83/91
* <i>taRaqa</i> n	–	y	–	–	–	y	–	–	–	y	y	y	5	42
* <i>jumu</i>	–	y	–	–	–	–	–	–	y	y	–	–	3	25
* <i>bebek</i>	–	y	–	–	–	–	y	–	–	–	y	–	3	25
* <i>kuRapu</i>	y	–	–	? ¹⁷	–	y	y	y	y	–	y	y	7-8	58/67
* <i>palaja</i>	y	–	–	–	–	–	y	? ¹⁸	y	–	–	–	3-4	25/33
* <i>laci</i>	y	y	y	–	y	y	–	–	–	y	y	–	7	58
* <i>qulua</i>	–	–	–	–	–	–	–	–	–	y	? ¹⁹	–	1-2	8/17
* <i>pilu</i>	–	–	–	–	–	–	–	–	y	y	–	y	3	25
* <i>qatule</i>	y	–	–	–	–	–	–	–	y	y	–	–	3	25
* <i>taRutu(m,ŋ)</i>	–	–	–	–	–	–	y	–	–	y	y	–	3	25
* <i>kanase</i>	–	–	–	y	–	–	–	y	y	y	–	–	4	33
* <i>bunaR</i>	–	–	y	y	–	–	–	–	? ²⁰	–	–	–	2-3	17/25
* <i>tiqo</i>	–	y	–	y	–	y	–	–	–	–	y	y	5	42

¹⁵ *kula* for †*kulabo*.¹⁶ Vague gloss: ‘k.o. fish’/‘fish with spiny ridge’.¹⁷ *ravu*: first syllable missing.¹⁸ Vague gloss: ‘k.o. fish’.¹⁹ *urua* for †*unu*. Borrowed?²⁰ *vuna* for †*buna*.

Table 3.4 Presence/absence of reflexes of POc fish names in twelve languages (3)

<i>*(k,q)ulapi</i>	'parrotfish spp. (Carangidae) incl. <i>Hipposcarus longiceps</i> , longnosed parrotfish'												
<i>*bala(ŋ,k)i</i>	' <i>Acanthurus</i> and <i>Naso</i> spp. (Acanthuridae)'												
<i>*qume</i>	'unicornfish, <i>Naso unicornis</i> (Acanthuridae)'												
<i>*koto(ŋ)</i>	'large rock cod, <i>Epiphenilus</i> spp. (Serranidae)'												
<i>*don(o,u)</i>	'rock cod, possibly <i>Cephalopholis</i> (= <i>Plectropomus</i>) spp. (Serranidae)'												
<i>*(k,q)umutuR</i>	'sweetlips, <i>Plectorhynchus</i> spp. (Haemulidae)'												
<i>*b^wa[p,w]a</i>	'snapper, <i>Lutjanus</i> sp. (Lutjanidae)'												
<i>*tasiwa</i>	'snapper, <i>Lutjanus</i> sp. (Lutjanidae)'												
<i>*kasika</i>	'large emperor, <i>Lethrinus</i> sp. (Lethrinidae)'												
<i>*palata</i>	'dolphinfish (Coryphaenidae)'												
<i>*b^wa(s,j)i</i>	'moray eel (Moraenidae)'												
<i>*muqu(ŋ)</i>	'rabbitfish, <i>Siganus</i> sp., possibly <i>S. spinus</i> (Siganidae)'												
<i>*tanipa</i>	'sardine, <i>Sardinella</i> sp. (Clupeidae)'												

	Titan	Motu	Mutu	Teop	Marovo	Gela	Lau	Arosi	Wayan	Niutopotapu	Kiribati	Satawalese	no. retentions	percentage
<i>*(k,q)ulapi</i>	–	–	–	–	–	y	–	–	y	–	y	y	4	33
<i>*bala(ŋ,k)i</i>	y	–	–	–	–	–	–	–	y	y	–	–	3	27
<i>*qume</i>	–	–	–	–	–	–	y	y	–	y	–	y	4	33
<i>*koto(ŋ)</i>	y	–	–	–	–	–	–	–	y	–	–	–	2	17
<i>*don(o,u)</i>	–	y	–	–	–	–	–	–	y	y	–	–	3	25
<i>*(k,q)umutuR</i>	y	–	y	–	–	y	y	–	y	–	–	–	5	42
<i>*b^wa[p,w]a</i>	y	–	–	–	–	–	–	–	y	–	–	–	2	17
<i>*tasiwa</i>	–	y	–	–	–	–	y	–	–	y	–	–	3	25
<i>*kasika</i>	y	y	–	y	–	–	–	–	y	–	–	y	5	42
<i>*palata</i>	–	–	–	–	y	–	–	–	–	–	–	–	1	8
<i>*b^wa(s,j)i</i>	y	–	–	–	–	–	–	–	–	–	–	–	1	8
<i>*muqu(ŋ)</i>	–	y	–	–	y	–	y	–	–	–	–	–	3	25
<i>*tanipa</i>	–	–	–	–	–	–	–	–	y	– ²¹	–	–	1	8

²¹ Niutopotapu *tenifa* 'whale shark' shows semantic shift.

Table 3.5 Presence/absence of reflexes of POC fish names in twelve languages (4)

<i>*paya</i>	'anchovy (Engraulidae)'												
<i>*(k,q)aRua(s)</i>	'generic for mullet (Mugilidae)'												
<i>*bubu</i>	'triggerfish, <i>Balistes</i> sp. (Balistidae)'												
<i>*taRat</i>	'unicornfish, <i>Naso</i> spp., probably incl. <i>N. brevinostris</i> (Acanthuridae)'												
<i>*qaroŋo</i>	'surgeonfish, <i>Acanthurus</i> sp. (Acanthuridae)'												
<i>*mamin</i>	' <i>Cheilinus</i> spp. (Labridae), incl. double-headed Māori wrasse, <i>C. undulatus</i> '												
<i>*tanapa(R,r)</i>	'large wrasse, probably <i>Cheilinus</i> sp. (Labridae)'												
<i>*magaRut</i>	'flying fish (Exocoetidae)'												
<i>*panapa</i>	'garfish, <i>Hemiramphus</i> sp. (Hemiramphidae)'												
<i>*paRi-manuk</i>	'eagle ray, <i>Aetobatus narinari</i> '												
<i>*kaboRa</i>	'catfish-eel, <i>Plotosus</i> sp. (Plotosidae)'												

	Titan	Motu	Mutu	Teop	Marovo	Gela	Lau	Arosi	Wayan	Niuatoputapu	Kiribati	Satawalese	no. retentions	percentage
<i>*paya</i>	— ²²	—	y	—	—	—	—	—	—	—	—	—	1	8
<i>*(k,q)aRua(s)</i>	y	—	—	—	—	y	y	—	—	y	y	y	6	50
<i>*bubu</i>	y	—	—	y	—	—	y	y	y	—	y	y	7	58
<i>*taRat</i>	—	y ²³	—	—	y	—	—	—	y	—	—	y	4	33
<i>*qaroŋo</i>	y	—	—	—	—	—	—	—	—	y	y	—	3	25
<i>*mamin</i>	y	y	y	—	y	—	—	—	—	—	—	y	5	42
<i>*tanapa(R,r)</i>	y	—	—	—	—	—	—	—	y	y	—	? ²⁴	3–4	25/33
<i>*magaRut</i>	y	—	—	—	—	—	—	y	—	—	—	y	3	25
<i>*panapa</i>	— ²⁵	—	—	? ²⁶	—	—	—	—	—	—	y	—	1–2	8/17
<i>*paRi-manuk</i>	—	y	—	—	—	—	—	y	y	y	—	—	4	33
<i>*kaboRa</i>	—	—	—	—	—	y	—	—	y	—	—	—	2	17

²² Titan *par* 'gizzard shad'.²³ Motu *tara* 'k.o. fish'.²⁴ Satawalese *napanap* 'wrasse'.²⁵ Titan *cinap* 'barred garfish' has wrong initial syllable.²⁶ Teop *ponpon* 'various garfish spp.'

Table 3.6 shows the full range of retention rates for the 52 POc etyma. It can be seen that there is wide variation, with the most durable names being ten times more likely to be retained than the least durable.

Table 3.6 Retention rates for 52 Proto Oceanic fish names

% retentions	@ Proto Oceanic fish name	
83/91	* <i>(ñ,n)opuq</i>	'stonefish, <i>Synanceia</i> spp.'
83	* <i>ikan</i>	'fish (generic)'
67	* <i>bakewa</i>	'shark (generic)'
67	* <i>paRi</i>	'ray (generic)'
67	* <i>qatun</i>	'skipjack tuna, <i>Katsuwonus pelamis</i> (Scombridae)'
58/67	* <i>kuRapu</i>	'rock-cod, <i>Epinephelus</i> sp. or spp. (Serranidae)'
58	* <i>bubu</i>	'triggerfish, <i>Balistes</i> sp. (Balistidae)'
58	* <i>laci</i>	' <i>Scomberoides</i> spp., incl. <i>S. lysan</i> (Scombridae)'
50	* <i>(k,q)aRua(s)</i>	'mullet, generic (Mugilidae)'
50	* <i>qawaq</i>	'milkfish, <i>Chanos chanos</i> (Chanidae)'
50	* <i>tañiRi</i>	'Scombridae spp., probably incl. Spanish mackerel and wahoo'
42	* <i>kasika</i>	'large emperor, <i>Lethrinus</i> sp. (Lethrinidae)'
42	* <i>qonos</i>	'mature barracuda (Sphyraenidae)'
42	* <i>(k,q)umutuR</i>	'sweetlips, <i>Plectorhynchus</i> spp. (Haemulidae)'
42	* <i>mamin</i>	' <i>Cheilinus</i> spp., incl. double-headed Māori wrasse, <i>C. undulatus</i> (Labridae)'
42	* <i>taRaqa</i>	'squirrelfish, <i>Sargocentron</i> sp. or spp. (Holocentridae)'
42	* <i>tiqo</i>	'goatfish sp. (Mullidae)'
33/42	* <i>saku-layaR</i>	'sailfish (Istiophoridae)'
33	* <i>kanase</i>	'generic for certain mullet spp. (Mugilidae)'
33	* <i>(k,q)ulapi</i>	'parrotfish spp. (Scaridae), incl. <i>Hipposcarus longiceps</i> , longnosed parrotfish'
33	* <i>paRi-manuk</i>	'eagle ray, <i>Aetobatus narinari</i> '
33	* <i>qume</i>	'unicornfish, <i>Naso unicornis</i> (Acanthuridae)'
33	* <i>taRat</i>	'unicornfish, <i>Naso</i> spp., probably incl. <i>N. brevinostris</i> (Acanthuridae)'
25/33	* <i>palaja</i>	'rabbitfish, <i>Siganus</i> spp. (Siganidae)'
25/33	* <i>tañapa(R,r)</i>	'large wrasse, probably <i>Cheilinus</i> sp. (Labridae)'
25	* <i>bala(η,k)i</i>	'surgeonfish, prob. an <i>Acanthurus</i> and <i>Naso</i> taxon'
25	* <i>bebek</i>	'generic for Chaetodontidae, butterflyfish'
25	* <i>don(o,u)</i>	'rock cod, possibly <i>Cephalopholis</i> spp. (Serranidae)'
25	* <i>jumu</i>	'Balistidae, triggerfish, and possibly Monacanthidae, leatherjackets'
25	* <i>magaRut</i>	'flying fish (Exocoetidae)'
25	* <i>muqu(η)</i>	'rabbitfish, <i>Siganus</i> sp., possibly <i>S. spinus</i> (Siganidae)'

(continued on next page)

% retentions	Proto Oceanic fish name	
25	* <i>pilu</i>	‘ <i>Caranx</i> sp. or spp. (Carangidae)’
25	* <i>qarongo</i>	‘surgeonfish, <i>Acanthurus</i> sp. (Acanthuridae)’
25	* <i>qatule</i>	‘scad, incl. big-eyed scad, <i>Trachurops crumenophthalmus</i> (Carangidae)’
25	* <i>sabutu</i>	‘snapper (Lutjanidae) or emperor (Lethrinidae) sp. or spp.’
25	* <i>saku</i>	‘needlefish and long toms (Belonidae)’
25	* <i>taRutu(m,η)</i>	‘porcupinefish, <i>Diodon</i> spp. (Diodontidae)’
25	* <i>tasiwa</i>	‘snapper, <i>Lutjanus</i> sp. (Lutjanidae)’
25	* <i>tuna</i>	‘generic for freshwater eels (Anguillidae)’
25	* <i>walu</i>	‘Scombridae sp. or spp.’
17/25	* <i>bunaR</i>	‘batfish, <i>Platax</i> sp. or spp., possibly <i>Naso</i> sp. or spp.’
17	* <i>b^wa[p,w]a</i>	‘snapper, <i>Lutjanus</i> spp. (Lutjanidae)’
17	* <i>kaboRa</i>	‘catfish-eel, <i>Plotosus</i> sp. (Plotosidae)’
17	* <i>koto(η)</i>	‘large rock cod, <i>Epiphenilus</i> spp. (Serranidae)’
17	* <i>kulabo</i>	‘snapper sp. or spp. (Lethrinidae)’
17	* <i>qalu</i>	‘taxon of barracuda (Sphyraenidae)’
17	* <i>qulua</i>	‘ <i>Caranx</i> sp., possibly <i>C. ignobilis</i> , big-headed jack (Carangidae)’
8/17	* <i>panapa</i>	‘garfish, <i>Hemiramphus</i> sp. (Hemiramphidae)’
8	* <i>b^wa(s,j)i</i>	‘moray eel (Moraenidae)’
8	* <i>palata</i>	‘dolphinsfish (Coryphaenidae)’
8	* <i>paya</i>	‘anchovy (Engraulidae)’
8	* <i>tanipa</i>	‘sardine, <i>Sardinella</i> sp. (Clupeidae)’

3.2 Some fish names are as persistent as some basic vocabulary items

We are now in a position to evaluate the hypothesis that some Proto Oceanic fish names have been as persistent as some basic vocabulary items.

It was noted in §2.5 that, in a sample of 40 daughter languages, the 60 most conservative POC basic vocabulary items in a modified 200 item Swadesh list show retention rates ranging between 97 and 23 percent. The 24 most persistent etyma were retained by 70 percent or more languages, 44 etyma were retained by 50 percent or more languages, 54 by 40 percent or more, and 60 by 23 percent or more.

No fewer than 38 of the 52 POC fish names examined show retention rates within the range exhibited by the 60 most stable basic vocabulary etyma. Eleven fish names fall within the range of the 44 most stable basic vocabulary etyma. The hypothesis is strongly supported.

Some small caveats must be attached to this conclusion. Methodological difficulties in comparing fish name retentions with basic vocabulary retentions were discussed in §2. In this study the fish name retention rates are based on just 12 languages, whereas the basic vocabulary retention rates are based on 40. (The same 40 languages could not be used in the fish names study for reasons stated in §2.1.) If the composition of the two samples, in terms of distribution across major subgroups, were markedly different this might bias the results, because some Oceanic subgroups are known to contain more languages that are lexically conservative than other subgroups. However, the composition is roughly similar so the effects of different sample sizes are probably small.

Table 3.7 Retention rates in PCP and PPn for fish names by families/groups

family/group	POc no.	PCP % retained	PPn % retained
rays	2	100	100
damsels, sergeant-majors (Pomacentridae)	2	100	100
sweetlips (Plectorhynchidae)	2	100	50
boxfish (Ostraciidae)	3	100	33
eels	7	86	14
trevally, jacks etc (Carangidae)	6	84	66
scombrids	6	84	84
garfish (Heramphidae)	5	80	80
surgeons and unicorns (Acanthuridae)	12	75	25
snapper (Lutjanidae)	4	75	50
rock cod (Serranidae)	4	75	50
mullet (Mugilidae)	3	75	75
squirrelfish (Holocentridae)	3	66	66
goatfish (Mullidae)	3	66	0
parrotfish (Scaridae)	7	57	57
rabbitfish (Siganidae)	7	57	43
wrasses (Labridae)	6	50	33
emperors (Lethrinidae)	5	40	20
triggerfish (Balistidae)	4	50	25
marlin (Xiphiidae))	2	50	50
sharks	7	43	43
porcupinefish (Diodontidae)	5	40	40

Only two fish names have retention rates of more than 70 percent, ranking with the most stable 24 basic vocabulary items. One of these is the life form taxon **ikan* ‘fish’. The other is the generic **(ñ,n)opuq* ‘stonefish’. These repulsive-looking fish are not economically useful but are extremely dangerous denizens of the shallow sandy bottoms. The next three most stable forms consist of the respective generics for sharks and rays, **bakewa* and **paRi*, together with **qatun*, which denotes one or more species of much-prized game fish in the bonito and tuna family. Sharks and rays are extremely salient fish for several reasons: they are highly distinctive in appearance and behaviour, very large, some kinds are dangerous, and they have economic importance. The next five names in the top ten all denote large or fairly large fish that are highly regarded as food.

3.3 Retention rates of names by families or higher-order groups

Have names for taxa belonging to certain families of fish been more persistent than names for taxa belonging to other families? An answer to this question requires comparison of all secure POc reconstructions with a later language or languages. One set of comparisons that can

Table 3.8 Retention rates by language for 52 POc fish names

language	no. retentions	percentage retained
Wayan	29-30	56-58
Niuatoputapu	28	54
Titan	24	46
Satawalese	20	38
Motu	17	33
Kiribati	16-19	31-36
Gela	16	31
Lau	15	29
Arosi	12-13	23-25
Marovo	9	18
Teop	8-9	16-18
Mutu	8	16

readily be made is between POc, PCP and PPn. Table 3.7 specifies the number of retentions in PCP and PPn of reconstructed POc names for fish belonging to particular families or, in the case of sharks, rays and eels, high-order groups.

Unfortunately, numbers in most groups are too low to make tests of statistical significance useful. Among those groups with four or more POc names it is noteworthy that carangids, scombrids, rock cod and mullet, all important food fish, show high retention rates in both PCP and PPn. But it is unclear why, of the four names in the sample representing carangids, one, **laci* ‘*Scomberoides* spp. incl. *S. lysan*’, has been very durable (scoring 58%) while the other three have not (**qatule*, probably denoting the big-eyed scad, **qulua* and **pilu*, both denoting *Caranx* sp. or spp., all score 25% or less). It is also striking that although most POc names for kinds of eels and for Acanthuridae (surgeonfish and unicornfish) are retained in PCP, very few are kept in PPn.

3.4 Variation in retention rate among languages in the sample

The 12 languages vary greatly in their retention rates for fish names (Table 3.8). This finding is consistent with what is known about retention rates for basic vocabulary among Austro-nesian languages in general (Blust 1981, 1999).

The percentages for certain languages are likely to have been deflated by the incompleteness of the fish name lists for these languages, particularly Kiribati and Mutu and to a lesser extent Arosi, Lau, Niuatoputapu and Teop.

Table 3.9 Total recorded fish names in 12 Oceanic languages

Wayan 484	Satawalese 400	Gela 368	Marovo 316	Titan 287	Uvean 284
K'marangi 262	Marquesan 260	Niua 209	Teop 197	Kiribati 151	Mutu 145

4 Estimating the size of the Proto Oceanic lexicon of fish names

4.1 Introduction

Let us turn now to another set of questions. How many fish taxa were distinguished in POC? What proportion of the fish names were uninomials and binomials, respectively?

A fair idea can be gained by looking carefully at descriptions of a sample of present day languages. Investigators making fairly comprehensive studies of particular fishing communities living in rich marine environments in western Melanesia have consistently recorded more than 300 names for kinds of fish. Hviding (1996:193) says that speakers of Marovo distinguish by name over 400 kinds of fish; Hviding (1990) lists 316 Marovo fish names. For Gela, Foale (1998) lists 368 names (including 14 synonyms). During only 12-16 weeks fieldwork on M'bunai Titan, a language of the Admiralty Islands, Akimichi & Sakiyama (1991) recorded 287 fish taxa.

Figures for some communities in Remote Oceania are of a similar order. Helfman and Randall (1973) give 336 fish names for Palauan, a non-Oceanic Austronesian language. For Satawalese, spoken on an atoll in the Central Carolines, 400 names were recorded by Akimichi & Sauchomal (1982), based on seven months fieldwork. This number is high considering that Satawalese is a part of a chain of atolls, and the range of species and genera is likely to be fewer than in the vicinity of large high islands and especially, continental Melanesia. For the Western Fijian language of Wayan, 484 fish names were recorded of which 352 are uninomials and 132 are binomials (Pawley and Sayaba 2003). (This count excludes about 60 binomials that are probably descriptions rather than conventional names.)

Total counts for some isolated atolls and small high islands in the central Pacific are a bit lower. Lieber (1994) gives 262 names for Kapingamarangi, an isolated atoll south of the main Carolines group. Rensch (1983) gives 284 names for Uvean (aka Wallisian), in western Polynesia, and Lavondès (1977) gives 260 fish names for Marquesan. There are a number of other published lists which, although very useful, are plainly incomplete. For example, the list (Dye 1983) for Niuatoputapu, a language of western Polynesia, consists of 209 names (37 of these mark developmental stages of 12 species).

For Tobelo, a non-Austronesian language of the Bird's Head family in North Halmahera, Taylor (1990) recorded 358 fish taxa. For Pendau, a Malayo-Polynesian language of central Sulawesi, Quick (2010) recorded 300 names, of which 73% were uninomials.

For reasons to be discussed below, it is likely that none of the inventories of fish names referred to above is exhaustive, not even those numbering over 400. There are various means of spotting the gaps and estimating their extent. We turn now to this matter.

Table 3.10 Uninomials and binomials in 11 contemporary Oceanic languages and in POc, PCP and PPn

	Mutu	Gela	Wayan	Marovo	Satawalese	Titan	Uvean
uninomials	104	252	352	194	278	279	180
binomials	41	100	132	122	122	8	104
% binomials	28	27	28	38	30	3	36
	Niua	K'marangi	Kiribati	Teop	POc	PCP	PPn
uninomials	138	148	132	168	140	150	112
binomials	71	114	19	29	1	3	2
% binomials	34	43	14	15	1	2	2

4.2 Estimating absolute numbers of names

One method of detecting gaps is simply to compare the total number of fish names recorded for each language in a representative sample. It can be seen that, among the 12 languages cited in Table 3.9, the total number of names varies greatly.²⁷

Insofar as all these languages are spoken by fishing communities who use similar fishing techniques and have access to a pretty similar range of fish families and genera, and indeed species, we would expect the size of their lexicons to be more similar than they are. On these grounds alone it can be inferred that the lists numbering below 300 are probably incomplete, especially for the languages of Melanesia, and lists below 200 are seriously incomplete. However, it must be allowed that in some Pacific Island communities there has in recent times been a reduction in the range of fishing methods employed and a decline in knowledge of fish names and fish ecology.

4.3 Number and ratio of uninomials to binomials

Another method is to compare the ratio of uninomials and binomials that have been recorded, as well as the absolute numbers of each (Table 3.10).

Taking the five languages with the highest number of uninomials in Table 3.10 as representing the best described languages, we find an average of 271 uninomials. It is noteworthy that the three Polynesian languages in the sample range between 138 and 180 uninomials, well short of this figure.

In the best documented Oceanic fish taxonomies, binomials normally amount to between 27 and 38 percent of the total names (median 30 percent). If the proportion of binomials recorded for a language deviates markedly from this range it stands out as suspiciously anomalous. In three languages, Titan, Kiribati and Teop, the percentage of binomials is 15 percent or less. It is likely that in each case the list of binomials is seriously incomplete. Most striking is Titan, where binomials make up only three percent of the 287 fish names. We can infer that roughly 100 Titan binomials were not recorded. At the other extreme, Kapingamarangi (43%) is considerably above the median; it may be that in this case the list of binomials includes some *ad hoc* descriptive forms and/or that the list of uninomials is far from complete.

²⁷ In this and later tables 'K'marangi' refers to Kapingamarangi and 'Niua' to Niuatoputapu.

Table 3.11 Grouper, rock cod, coral cod (Serranidae); trevally and jacks (Carangidae)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
Serranidae	12	28	14	26	26	21	19	7	6
Carangidae	6	12	16	21	43	10	18	11	12

4.4 Comparison of number of fish names family by family

Yet another indicator of how complete the record of fish names for a particular language is, comes from cross-linguistic comparison of the number of taxa or names for each particular biological family (or sometimes a group of related families). Fairly consistent patterns emerge as to how many taxa are typically distinguished in each family or larger group. If the number of recorded taxa in a language is much lower than the average or median this is a sign that the list is incomplete.

Tables 3.11–3.22 give the number of names recorded for certain groups of fishes in eight contemporary languages plus PPn. The groups are usually a single family or a pair of closely related families, though in the case of sharks, rays and eels, each group consists of several families. In the case of PPn, it is to be expected that the totals for each family will generally be below the average for contemporary languages because the PPn reconstructions consist almost exclusively of uninomials and because the PPn list is probably more seriously incomplete than that of any of the contemporary languages.

The **Serranidae** and **Carangidae** (Table 3.11) both contain many species and many important food fish. Morphologically distinct species in each family are consistently classified into many taxa. (There seem to be no cases where a language has a generic for the diverse Serranidae family and the same is true for the Carangidae. Generics exist with much more restricted ranges.) For the Serranidae, the Teop list is anomalous in having only seven names. Of the 26 Gela terms for Serranidae, as many as eight are synonyms, so the number of distinct taxa is only 18. For the Carangidae, Niatoputapu and Wayan are anomalous in having as few as six and 10 names, respectively, and Gela in having as many as 43. The Gela list includes four terms for growth stages (other than the unmarked, mature stage term) and five synonyms.

With hundreds of species each, the **Labridae** and **Scaridae** (Table 3.12) are two of the largest and morphologically most diverse families. Both families contain many important food fish. Kiribati and Niatoputapu are anomalous in distinguishing only three and four

Table 3.12 Wrasses (Labridae); parrotfish (Scaridae)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
Labridae	4	9	3	14	17	48	10	14	4/5
Scaridae	9	14	5	28	11	16	18	13	5/6

Table 3.13 Goatfish (Mullidae); mullet (Mugilidae)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
Mullidae	8	10	3	15	8	10	9	6	6
Mugilidae	7	7	5	8	2	2	7	3	4

terms for Labridae. Wayan stands out in distinguishing as many as 48. Twenty-seven of the Wayan terms are uninomials, so even if we discount some binomials as being merely descriptive the number of valid taxa remains high.

Mullidae, goatfish (aka grey mullet, Table 3.13) are a fairly numerous family of shallow water feeders, usually caught in nets or traps, and which are easily identified by the pair of barbels on the chin. There is usually a generic term for the family as well as a number of named kinds. **Mugilidae**, mullet (aka red mullet), are a small family of shallow water feeders, with just a few species present in any one locality, but are economically important and each species is often distinctively named. The Gela, Wayan and Teop lists are anomalous in distinguishing only two or three Mugilidae taxa.

The **scombrids** (Table 3.14) include several species much valued as game fish and usually finely discriminated in indigenous Oceanic taxonomies. However, the family is morphologically fairly diverse and it is not usual to find a generic for the whole family. Wayan is on the low side in number of scombrid taxa. **Xiphiidae** are a very small family of morphologically distinctive deep sea fish. The lists for Niuatoputapu and Gela lack names for two prominent kinds of Xiphiidae: swordfish and marlins, and Teop, unusually, subsumes all kinds in one taxon.

The **Acanthuridae** (Table 3.15) are a moderately numerous family of reef grazers which occur in schools. The larger species, especially, are valued as food and morphologically distinctive species are usually named separately. Satawalese has an exceptionally high number of Acanthuridae names, as many as 28 being uninomials. The **Siganidae** are a fairly small family of reef grazers with very sharp fin spines. They are good eating and are usually finely discriminated in the taxonomy. The Satawalese, Niuatoputapu, Uvean and Kiribati lists appear to be missing some terms.

The **Holocentridae** (Table 3.16) are small, brilliant shallow water coral fishes. There is often a generic for the family and invariably several taxa are named. The **Balistidae**, grazing fish of the coral reef and weedy shallows, number many species. Most are distinctively

Table 3.14 Mackerels and tuna (Scombroidei); marlin and swordfish (Xiphiidae)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
scombrids	8	12	7	10	9	6	13	6	4
Xiphiidae	1	1	3	2	1	3	2	1	1

Table 3.15 Surgeonfish/unicornfishes (Acanthuridae); rabbitfish (Siganidae)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
Acanthuridae	13	23	10	32	19	20	10	11	9
Siganidae	3	4	1	4	19	10	13	7	2

Table 3.16 Squirrelfish/soldierfish (Holocentridae); triggerfish (Balistidae) and leatherjackets (Aluteridae incl. Monacanthidae)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
Holocentridae	4	11	5	14	5	10	5	5	6
Balistidae and Aluteridae	5	11	3	22	11	25	9	11	1

marked with bright colours and many are separately named. Some are poisonous. The **Aluteridae** comprise many species of small or medium sized grazing fish, similar in habits to the Balistidae. Some species are considered poisonous. Aluteridae and Balistidae are sometimes subsumed under a single generic in Oceanic languages. There is a marked gap between Satawalese and Wayan and the rest in number of names for Holocentridae and for Balistidae and Aluteridae.

The **Lutjanidae** (snappers, Table 3.17) are a large family of carnivorous fish, mostly bottom dwellers moving in schools in outer coral reefs and lagoons. The **Lethrinidae** (emperors) comprise about 20 species living mainly in shallow, coastal waters. Noteworthy here is the high number of terms for kinds of snapper in Gela, and the low numbers for Wayan, and also the high number of Titan terms for emperors. The fact that authors providing lists of fish names and identifications for Oceanic languages often follow conflicting scientific taxonomies creates difficulties in comparing group totals across languages. Taxonomists disagree, for example, over whether **Lethrinidae** and **Plectorhynchidae** (grunters, sweetlips) should be assigned to the family **Lutjanidae** or to separate families. Members of these closely

Table 3.17 Snapper, sea-perch, bass (Lutjanidae); emperors (Lethrinidae); sweetlips and grunters (Plectorhynchidae)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
Lutjanidae	13	16	13	8	23	7	17	11	10
Lethrinidae	3	10	7	13	15	10	23	7	3
Plectorhynchidae	0	?	0	2	6	12	7	1	?

Table 3.18 Sharks and rays

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
sharks	7	13	7	10	10	13	8	6	5
rays	5	7	5	7	4	9	5	10	3

related groups are carnivorous, usually have large heads, equal jaws and a forked tail-fin. They are an important food source and many taxa are distinguished but as a rule, Oceanic languages have no generic terms for any of the families (or sub-families) in question.

Sharks and **rays** (Table 3.18) each fall into several families, some with several species. Individual species tend to be salient because of their size and distinctive morphology and behaviour and, in some cases, because they are eaten. In Oceanic languages there is almost always a generic term for sharks and another for rays, and the generics generally have several subtaxa. The Kiribati, Niuatoputapu, Titan and Teop totals for sharks are on the low side, as is the Gela total for rays.

Eels (Table 3.19) fall into several families, chiefly the Anguillidae (freshwater eels) and several families of sea or brackish water eels: Muraenidae (morays), Ophichthyidae (snake eels), Congridae (conger eels) and Muraenesocidae (pike eels or pike congers). This highly salient group of fish is usually finely classified in Oceanic languages. There is often a generic term for eels as well as terms (often with subtaxa) for each of the families.

Sphyraenidae (barracuda, Table 3.19) are a small family of predatory fish, large fast and elongated, with very large sharp teeth that make them dangerous to humans. They are good eating. Generally, several growth stages and sometimes two or three mature kinds of barracuda are distinguished. It can be seen that several languages are on the low side in number of recorded eel and barracuda taxa.

The **Clupeidae** (Table 3.20) are small migratory shoaling fish of shallow coastal waters. They are good eating and are taken in nets. The lists for Gela, Niuatoputapu, Satawalese and Teop score notably lower than Titan and Wayan in number of Clupeidae, and it is likely that the lists are incomplete. The only member of the **Chanidae** is the milkfish, *Chanos chanos*, which is everywhere distinguished. The **Atherinidae** are a small family of silvery, sardine-like schooling fishes which are mainly used as bait.

The genus *Synanceia* (stonefish) is sometimes included by ichthyologists in the family **Scorpaenidae** (scorpionfish) and the two groups are lumped together here (Table 3.21). Species of this morphologically diverse family all have long poisonous pectoral and dorsal

Table 3.19 Eels (Anguilliformes); barracuda (Sphyraenidae)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
eels	10	16	7	14	8	10	6	9	3
barracuda	2	5	2	5	3	5	5	4	3

Table 3.20 Sardines and herrings (Clupeidae); milkfish (Chanidae); silversides/hardyheads (Atherinidae)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
Clupeidae	1	?	5	0	1	7	7	0	4
Chanidae	1	3	1	1	1	1	1	1	1
Atherinidae	0	1	0	0	3	1	0	0	0

Table 3.21 Scorpionfish (Scorpaenidae) and stonefish (Synanceia)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
Scorpaenidae and Synanceiidae	1	3	1	7	4	16	4	2	1

spines. The *Synanceia* have the most potent of all the fish venoms, secreted from glands at the base of their needle-like dorsal fin spines. They have large grotesquely shaped heads and mouths and conceal themselves by lying in mud, sand, coral or weeds, and are extremely dangerous. Wayan distinguishes many more scorpionfish and stonefish taxa than the other languages. The fact that most Wayan names are uninomials suggests that lists for some of the other languages are incomplete.

The **Blennidae** (blennies, Table 3.22) are a large family of agile, small elongated fish of shallow reef waters and tidal pools. The **Gobiidae** (gobies) are usually very small fish of tidal pools, reefs and estuaries. The **Periopthalmidae** (mudskippers) comprise a few small amphibious species of mangrove swamps and muddy shores. Figures for these three families are lumped together here both because lexicographical identifications are often vague, and because ichthyologists have trouble deciding how many families should be distinguished. The totals for Satawalese and Gela are spectacularly higher than the rest. Most Gela terms are binomials and it is possible that some represent *ad hoc* descriptive epithets rather than conventional names.

Table 3.22 Blennies (Blennidae), gobies (Gobidae) and mudskippers (Periopthalmidae)

	Niua	Uvean	Kiribati	Satawalese	Gela	Wayan	Titan	Teop	PPn
Blennidae, Gobiidae and Periopthalmidae	1	?	0	23	28	5	2	1	1 (?)

This survey of family name totals suggests that even the larger inventories of fish names for Oceanic languages, those in the 350–480 range, are not complete. The Wayan list, for example, shows significantly below average numbers of names for Carangidae, Lutjanidae, Mugilidae and Scombridae.

POc speakers lived in the Bismarck Archipelago, a region with a very rich fish fauna. Lexical evidence (Osmond 1998) and archaeological evidence (Walter 1989, Kirch 1997) indicate that they exploited a wide range of fishing techniques. Given these considerations, we can infer that the number of fish taxa distinguished by POc speakers was on the same order as the largest numbers recorded for contemporary Oceanic languages, in the 400+ range, and that about 70 percent of fish names were uninomials.

5 Where have all the fish names gone?

The total number of fish names so far reconstructed for POc (145) falls far short of the number that we estimate were used by speakers of the language. Why are so many names missing from the reconstructed inventory? A similar question can be asked about PCP (150–160 reconstructions) and PPn (115).

One category of missing names can easily be identified: binomials. The only secure binomial reconstructed for POc is **paRi manuk* ‘eagle ray, *Aetobatis narinari*’ (lit. ‘bird ray’). (**saku-layaR* ‘swordfish’ is historically analysable into **saku* ‘needlefish and long toms’ plus **layaR* ‘sail’, but it was not a binomial: it is clear from contemporary evidence that **saku-layaR* were not a kind of **saku*.) Of the 160 reconstructions in Geraghty’s (1994) list of PCP fish names, just two are binomials. Of the 115 fish names that Hooper (1994) reconstructs for PPn, just three are binomials. The lack of widespread fully cognate binomial terms confirms what many commentators (e.g. Rensch 1983) have said: binomials, or to be more exact, the secondary or modifying terms in binomials, are notoriously unstable. Binomials generally make up around 30 percent of the total taxa in Oceanic fish taxonomies (see §3). The chances are that most of this 30 percent of missing POc terms will never be recoverable.

The dramatic difference between uninomial and binomial retention rates, presumably, has something to do with the geographic distribution of species as opposed to genera. Folk generics, represented by uninomials, are typically applied to two or more species of a biological genus and are sometimes applied to whole families. The same genera and families of fish tend to occur throughout the tropical Indo-Pacific. By contrast, folk specifics, often represented by binomials, typically apply to a single biological species or a group of closely related species and the geographic distribution of species tends to be more localised. Thus, modifying terms for folk specifics do not ‘travel’ as well as generic terms. But perhaps the main reason is that while generic names are usually arbitrary, modifiers almost always describe a feature of the morphology, the behaviour or the ecological niche of particular species. Accordingly, a number of competing modifiers may suggest themselves as equally convenient ways of distinguishing a particular member of a folk genus, so that even when a species is ubiquitous the original modifier in a binomial will often be subject to competition.

So much for the binomials. This still leaves many missing uninomials unaccounted for. One might seek to explain variations in durability among uninomials in terms of (a) where names rank in the taxonomic hierarchy, (b) the relation of particular taxa to humans, e.g. their usefulness, importance in cosmology and ritual, or danger, (c) inherent properties of

the referents, e.g. how striking or unusual they are in appearance or behaviour, and (d) the geographic distribution of particular species and genera.

While factor (d) very likely has had a considerable influence on the durability of binomials I do not think it has played much of a part with respect to uninomials. The latter generally refer to genera, families or high-order groups, and in those cases where they refer just to a single species it usually is one that is highly distinctive and widespread in the tropical Pacific. This is the case for the few POc reconstructions that can be identified as referring, or probably referring to a single species, e.g. **qawaq* ‘milkfish, *Chanos chanos*’, **qume* ‘unicornfish, *Naso unicornis*’, **mamin* ‘double-headed Māori wrasse, *C. undulatus*’ and possibly **qatun* ‘skipjack tuna, *Katsuwonus pelamis*’.

A reasonable hypothesis is that, other things being equal, the persistence of a name will correlate with its rank in the taxonomy: names of life-form taxa will be the most persistent, followed by major generics, minor generics, and specifics, in that order. There is some evidence in support of this hypothesis although what we can say is limited by the lack of precise semantic reconstructions for many POc names. The life form **ikan* ‘fish’ and the major generics **bakewa* ‘shark’, **paRi* ‘ray’ and **kanase* ‘mullet’ show high retention rates. However, the generics **bebek* ‘butterflyfish and coralfish’, **jumu* ‘triggerfish and leather-jackets’, **saku* ‘needlefish and long toms’ and **tuna* ‘freshwater eel’ all score quite low. In general minor generics have relatively low retention rates but the single most durable fish name, **(ñ,n)opuq* ‘stonefish’, was probably a minor generic, memorable because the stone fish is so dangerous.

I have not carefully scrutinised evidence bearing on the hypothesis that, at the level of folk generics and folk specifics, names for economically valuable fish will be more stable than other names (all other things being equal). There is some evidence that this is the case. For example, names for various members of the highly valued scombrid, carangid, rock-cod, snapper and mullet families tend to show high retention rates.

Further research should shed more light on these matters.

4 *Aquatic invertebrates*

ANDREW PAWLEY

1 Introduction

This chapter deals with invertebrates that are aquatic or semi-aquatic, such as crustaceans, molluscs, echinoderms, sea-worms, jellyfish and corals.¹ It addresses the following questions: (1) What terms for aquatic invertebrates can be attributed to Proto Oceanic (POc) and other high-order interstages of Oceanic? (2) What uses were made of these animals? (3) How does the number of taxa reconstructable for POc compare with the number attested in well-described contemporary languages?

The marine invertebrate fauna of the tropical southwest and central Pacific is fairly uniform, so that when Oceanic speakers first dispersed across this region some 3000 years ago they generally encountered familiar creatures. It must be added that not every island or island group has the full range of habitats: fringing coral reefs, mangrove forests, estuarine mudflats, seagrass flats, etc.

Molluscs, crustaceans and echinoderms gathered in and around the intertidal zone form one of the most reliable protein food sources of coastal Oceanic communities. The bulk of foraging for invertebrates in this zone is done by women while in most societies diving for lobsters and deep water molluscs is mainly men's work. Mollusc shells were traditionally made into a variety of tools and ornaments. Archaeological discoveries underline the long-standing importance of water invertebrates to speakers of Oceanic languages. Living sites and middens left by bearers of the Lapita culture contain extensive remains of molluscs and crustaceans and artefacts made from mollusc shells (see §4.1).

¹ This is a much revised and expanded version of Pawley (1996). I am grateful to Meredith Osmond for help in compiling and checking the list of cognate sets, and to Ann Chowning, John Lynch and Malcolm Ross for valuable comments on a draft of the paper. I am also indebted to Ann Chowning for data on some New Britain languages, to Paul Geraghty for providing terms from the Viwa dialect of Wayan Fijian and for helpful discussion of the Wayan material and to John Lynch for comparative material on Southern Vanuatu languages.

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Linguistic evidence that foraging on the reef for invertebrates was important to Proto Oceanic speakers is found in two widespread cognate sets noted by Clark (1991). Clark's POc reconstructions are given below, with a few additional cognates.² The first is a verb.

POc **paŋoda* 'gather seafood on the reef' (Clark 1991)

PT:	Gapapaiwa	<i>vanota</i>	'net prawns'
PT:	Motu	<i>haoda</i>	'to fish'
MM:	Teop	<i>vagana</i>	(1) 'gather marine organisms on the reef', (2) 'to fish, go fishing'
SES:	Bugotu	<i>vaŋoda</i>	'hunt for shellfish on the reef' ³
SES:	Gela	<i>vaŋoda</i>	(v) 'collect food on the reef.' (N) 'shellfish, crustaceans and echinoderms) gathered on the reef'
SES:	Sa'a	<i>haŋoda</i>	' <i>Haliotis</i> , abalone'
NCV:	Mota	<i>vaŋona</i>	'catch fish with a line, get shell-fish, etc. for a relish'
NCV:	Nguna	<i>(pa)vaŋoda</i>	'look for shellfish, gather shells, fish for seafish'
NCV:	SE Ambrym	<i>pæŋor</i>	'to fish'
NCV:	Namakir	<i>(ba)vaŋot</i>	'forage on reef'
NCV:	Lonwolwol	<i>foŋōr</i>	'look for fish'
NCV:	Uripiv	<i>(e)vaŋor</i>	'forage on the reef'
SV:	Anejoñ	<i>(a)haŋec</i>	'forage on reef'
Mic:	Marshallese	<i>yaŋ^weɿ</i>	'go fishing'
Fij:	Rotuman	<i>haŋota</i>	(v) 'to fish.' (N) 'fishing excursion, shoal of fish'
Pn:	Tongan	<i>fāŋota</i>	'to fish, or to search for shell-fish or any kind of <i>fiŋota</i> '
Pn:	Niuean	<i>faŋota</i>	'gather shellfish on the reef'
Pn:	Rennell	<i>hāŋota</i>	'to fish or gather shells, especially by women on the reef'
Pn:	Ifira-Mele	<i>fāŋota</i>	'gather shellfish etc. on the reef'

The second reconstruction, **p<in>aŋoda*, is a nominalisation of the verb using the infix **<in>*, which in POc typically derived a noun denoting the thing acted on or produced by the action of the verb. It is likely that **piŋoda* was present in POc as a fast speech variant: reflexes of **p<in>aŋoda* show loss of the second syllable in all Polynesian languages and in some North and Central Vanuatu and Papuan Tip languages.

POc **p<in>aŋoda*, **piŋoda* 'seafood gathered on the reef, edible sea invertebrates' (Clark 1991)

PT:	Molima	<i>igoda</i>	'collect shellfish'
PT:	Kilivila	<i>vigoda</i>	'shell (clams, snails)'

² In these two reconstructions I have substituted **d* for the POc phoneme that Clark writes as **nt*.

³ With respect to 'shellfish', much used in dictionary and wordlist glosses cited for this and certain other cognate sets, it should be noted that this term means different things to different people. Nearly all New Zealanders and many Australians and English people use 'shellfish' to mean '(edible) molluscs with external shells', excluding crustaceans, whereas others, including most people from the USA, use it to mean '(edible) crustaceans and molluscs with external shells'. It is apparent that most of our sources for Oceanic languages use this term in the narrower sense.

PT:	Dobu	<i>igoda</i>	(v) 'gather shellfish', (N) 'shellfish'
MM:	Tolai	<i>vinanono</i>	'generic name for sea shells' (final syllable irregular)
NCV:	Nguna	<i>vinanoda</i>	'shell, shellfish'
Pn:	Tongan	<i>fiʔota</i>	'sea creature of any kind other than vertebrates: shell-fish, crustaceans, cuttle-fish, jellyfish, eels, sea-snakes, sea-slugs, starfish, etc. and even sea-weeds'
Pn:	Niuean	<i>fiʔota</i>	(1) 'shellfish', (2) 'gather shellfish' (McEwen); 'an edible sea crab' (Sperlich)
Pn:	Samoa	<i>fiʔota</i>	'general term for edible molluscs and invertebrate sea animals'
Pn:	Takuu	<i>fiʔota</i>	'various kinds of shell-fish and seafoods gathered by women'

2 Classification of marine invertebrates

2.1 Zoological classification

In the discussion that follows cognate sets presented will be grouped under standard zoological categories. Zoology offers a complex phylogenetic taxonomy of invertebrates based on current views of their evolutionary relationships and morphological characters. The invertebrate family tree distinguishes more than 20 levels of grouping from kingdom down to species. Here we need only note those distinctions which will be useful in organising the material from Oceanic languages.

phylum ARTHROPODA

class CRUSTACEA

order Decapoda

tribes Palinura and Astacura: crayfish, lobsters, slipper lobsters

tribe Anomura: hermit crabs, coconut crabs, mangrove lobster, etc.

tribe Brachyura: true crabs

suborder Natantia: true prawns and shrimps

order Stomatopoda: Mantis shrimps, etc.

order Thoracia: barnacles

other shrimp-like animals

phylum MOLLUSCA

order Gastropoda: univalves or snail-like shellfish

order Bivalvia (Pelecypoda): bivalves or clam-like shellfish

order Cephalopoda: octopus, squid, nautilus

order Amphineura: chitons

phylum ECHINODERMATA

class ECHINOIDEA: sea eggs (sea urchins)

class ASTEROIDEA: starfish

class OPHIUROIDEA: brittle starfish

class HOLOTHUROIDEA: sea cucumbers (beche de mer, trepang, holothurians)
 class CRINOIDEA: sea lilies and feather stars
 phylum CNIDARIA (COELENTERATA)
 class ANTHOZOA: corals, anemones
 class SCYPHOZOA: true jellyfish
 class HYDROZOA: fire corals, hydroids, siphonophores
 class CTENOPHORA: comb jellyfish
 WORM-LIKE phyla: annelids, nemerteans, acanthocephalans
 phylum PORIPHERA: sponges

2.2 Oceanic folk taxonomies of aquatic invertebrates

In order to get an idea of the likely size and taxonomic structure of the POc lexicon for aquatic invertebrates one must look at contemporary languages whose speakers exploit a marine and shore environment fairly similar to that inhabited by POc speakers. Unfortunately there are very few systematic studies in this domain. There is a fairly detailed account of aquatic invertebrate taxonomy in Wayan, a dialect of the Western Fijian language (Pawley 1994, Pawley and Sayaba 2003) spoken on two small islands on the western margin of Fiji. Wayan speakers distinguish by name more than 240 marine invertebrate taxa.⁴ Almost 150 of these names apply to molluscs, about 48 to crustaceans, about 31 to echinoderms, about 12 to coelenterates and about five to marine worms.

Folk classifications of animals have many fewer levels than those recognised by zoologists. Berlin (1992) has discussed at length the organising principles underlying folk taxonomies of animals and plants (see chapter 8 for more detail). As folk taxonomies go, the Wayan classification of aquatic animals is among the more complex. Some domains have a depth of six contrasting levels – two levels more than Berlin's model recognises as the known maximum for folk taxonomies of wild animals.

Table 4.1 shows the contrasts between some first-order categories of invertebrates that occur in the Wayan Fijian taxonomy. These fall under no higher category other than *manumanu*, which refers to all creatures.

In many respects Wayan higher-order taxa differ markedly from those found in zoological classifications. For instance, there is no echinoderm category: sea cucumbers, sea urchins, starfish and brittle starfish are each assigned to separate primary taxa. There is no category corresponding to crustaceans. There is a general name for sea cucumbers but no overt taxon uniting the various sea urchin taxa (these animals represent a covert category, which Wayans readily identify by a descriptive phrase such as *manumanu laulau ni ḍakau* 'spiky animals of the reef'). Unsurprisingly, octopus and squid form a primary taxon apart from other molluscs. There is a generic for gastropods (*ḍiḍi*) but no generic for all bivalves. Instead there are generics for burrowing bivalves (*tavē*) and all kinds of oysters (*ḍiva*). Wayan also has a category, *manumanu gwāgwā*, that refers to edible decapods, subsuming *ura*, *seka*, *tubā*, *uŋa*

⁴ These numbers refer to terminal taxa, i.e. excluding higher-order taxa (generic terms with two or more subtaxa), and counting only one item for each set of synonyms or variant forms. Numbers are necessarily approximate because of disagreements among informants, the uncertain status of some descriptive binomials, and other factors.

Table 4.1 Some high-order aquatic invertebrate taxa in Wayan

1.	<i>manumanu</i> ‘animals, creatures’					
2.	<i>ura</i> prawns & lobsters	<i>seka</i> aquatic crabs	<i>tubā</i> land crabs	<i>uŋa</i> hermit crabs, coconut crabs	<i>ōiōi</i> gastropods	<i>tavē</i> burrowing bivalves
2.	<i>ōiva</i> oysters	<i>sulua</i> octopus & squid	<i>drī</i> sea cucumbers	[covert] sea urchins	<i>ikali ni ikō</i> starfish	<i>sulua vadravadra</i> brittle starfish
2.	<i>baya ni waitaōi</i> sea worms	<i>bōsuōu</i> sea slugs	<i>drālevu</i> sea hares	<i>dromani</i> anemones	<i>lase</i> hard corals	<i>sam</i> jellyfish

and *tolā*. However, this is a ‘collective’ category rather than a true superordinate taxon: one does not point to an animal and identify it as a *manumanu gwāgwā*.

Systematic descriptions of other Oceanic taxonomies are admittedly few but the available evidence suggests that the size and taxonomic structure of the Wayan terminology are fairly typical of Oceanic-speaking maritime communities.⁵ It is reasonable to assume that the POc taxonomy was roughly of the same order.

3 Crustaceans

From the limited evidence available it seems that Oceanic languages spoken by coastal communities typically distinguish some 40–50 crustacean taxa, of which between 20 and 40 taxa are crabs.

3.1 Order Decapoda: crabs, lobsters, prawns

The crustaceans named and taken for food and bait in Oceanic societies are almost exclusively decapods. There is a well established PMP generic for prawns and crayfish, which is continued in POc.

PAn **qudaŋ* ‘shrimp, lobster’ (Blust 2002)

POc **quraŋ* ‘generic for prawns and shrimps, crayfish and lobsters’

NNG:	Manam	<i>uro</i>	‘crayfish’
PT:	Dobu	<i>ʔula(boʔa)</i>	‘lobster, medium sized’
PT:	Motu	<i>ura</i>	‘crayfish’
MM:	Nalik	<i>uraŋ</i>	‘crayfish’
SES:	Gela	<i>ura</i>	‘generic for crayfish, <i>Panulirus</i> spp.’
SES:	‘Are’are	<i>ura</i>	‘shrimp, crayfish, prawn’

⁵ For information about taxonomies of aquatic invertebrates in particular Oceanic languages see Akimichi & Sakiyama (1991), Foale (1998), Hviding (2005), Pawley (1994).

SES:	Arosi	<i>ura</i>	'a small prawn'
SES:	Sa'a	<i>ura</i>	'crayfish, prawn'
NCV:	Mota	<i>ura</i>	'crayfish'
NCV:	Raga	<i>ura</i>	'generic for crayfish'
NCV:	Namakir	<i>ʔira</i>	'crayfish, shrimp'
NCV:	Sakao	<i>uraŋ</i>	'crayfish'
Mic:	Kiribati	<i>ura</i>	'lobster'
NCal:	Nemi	<i>kula</i>	'prawn'
Fij:	Bauan	<i>ura</i>	'generic for prawns and crayfish'
Fij:	Wayan	<i>ura</i>	'generic for prawns and shrimps, and in extended sense also for lobsters (<i>urau</i>)'

PPn **qura* 'crayfish' (POLLEX)

Pn:	Tongan	<i>ʔuo</i>	'generic for crayfish and prawns'
Pn:	Samoan	<i>ula</i>	'crayfish'
		<i>ula-tai</i>	'a saltwater shrimp'
		<i>ula-a-vai</i>	'a freshwater shrimp'

3.2 Palinura: spiny lobsters

The Palinura are represented in Oceania by two major families: (1) Palinuridae, spiny or rock lobsters and (2) Scyllaridae, slipper or shovel-nosed lobsters. (The terms 'lobster' and 'crayfish' are used interchangeably by many English speakers and the gloss 'crayfish' is commonly found in the dictionaries and wordlists.)

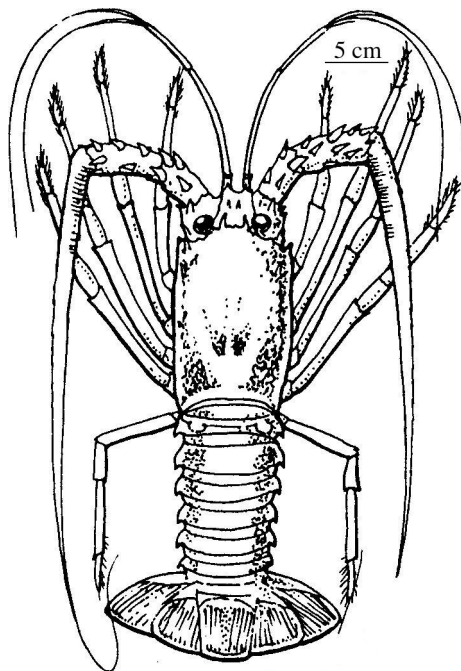


Figure 4.1 *Palinurus* sp., spiny lobster

3.2.1 Palinuridae, spiny lobsters

Lobsters are prized food in the Oceanic world. Among the spiny lobsters the commonest species is *Palinurus pencillatus*, the common spiny lobster. *P. versicolor* is a larger, more colourful relative. These are distinguished as specifics in Wayan.

In contemporary languages reflexes of the POc generic **quraŋ* (see §3.1) are typically applied to spiny lobsters (*Palinurus* spp.) as opposed to the very distinctive slipper lobsters (Scyllaridae). It is likely that this was also the case in POc.

3.2.2 Scyllaridae, slipper (or shovel-nosed) lobsters

Slipper lobsters are a family of clawless decapods with a very distinctive appearance, having a broad flat carapace and enlarged antennae projecting forward from the head as wide plates. Species of this family are found in warm waters throughout Oceania. A term for slipper lobster can be tentatively reconstructed for POc but the comparisons are phonologically problematic.

POc **[pa]paba* ‘*Parribacus* sp. (Scyllaridae), slipper lobster’

PT:	Misima	<i>sapapa</i>	‘k.o. saltwater lobster, lacking long feelers’ (* <i>p</i> > <i>s</i> irregular)
MM:	Tolai	<i>papaba</i>	‘crayfish sp.’
SES:	Gela	<i>mapa</i>	‘slipper lobster’ (perhaps dissimilation: * <i>p</i> > <i>m</i> , for †* <i>v</i>)
NCV:	Mwotlap	<i>na-vam</i>	‘slipper lobster, <i>Parribacus caledonicus</i> ’
NCV:	Mota	<i>vavapa</i>	‘kind of crawfish’
NCV:	Uripiv	<i>ne-vep</i>	‘slipper lobster, <i>Parribacus caledonicus</i> ’
NCV:	Naman	<i>ne-vev</i>	‘slipper lobster, <i>Parribacus caledonicus</i> ’
NCV:	Unua	<i>nepep</i>	‘slipper lobster, <i>Parribacus caledonicus</i> ’
NCV:	S Efate	<i>pepep</i>	‘slipper lobster, <i>Parribacus caledonicus</i> ’
NCal:	Iaai	<i>(wa)hep</i>	‘slipper lobster’ (* <i>p</i> > <i>h</i> , for †* <i>v</i>)

There is a well attested term in PCP which shows some resemblance to the above. However, the correspondence of PPn **t* to Fijian *ð* indicates a PCP palatal (which Blust (1978*b*) writes **c* and Geraghty 1986 as **j*).

PCP **jabajaba* ‘*Parribacus* sp. (Scyllaridae), slipper lobster’

Fij: Wayan *ðabaðaba* ‘*Parribacus* sp., similar to Moreton Bay Bug’

PPn **tapatapa* ‘Moreton Bay Bug’ (POLLEX)

Pn:	E Futunan	<i>tapatapa</i>	‘Moreton Bay Bug’
Pn:	K’marangi	<i>tapatapa</i>	‘ <i>Parribacus antartica</i> , sand lobster’
Pn:	Nukuoro	<i>tapatapa</i>	‘slipper lobster’
Pn:	Tikopia	<i>tapatapa</i>	‘large edible prawn (unidentified), up to 20 cm’

cf. also:

NNG:	Gedaged	<i>sabai</i>	‘shrimp, prawn, freshwater crayfish (<i>sabai dumadum</i> ‘small marine crayfish, up to 12 inches long’)
SV:	Kwamera	<i>təpatəpa</i>	‘slipper lobster, <i>Parribacus caledonicus</i> ’ (probably a loan from Polynesian)

Another set of resemblant forms, represented in certain MM languages of New Georgia and Santa Isabel and in one SES language, shows a superficial resemblance to the Central Pacific forms but the sound correspondences do not match and point instead to an earlier form such as **pepete* or **tepe-tepe*).

MM:	Roviana	<i>pepete</i>	‘a crustacean resembling <i>Ibacus ciliatus</i> ’
MM:	Marovo	<i>pepete</i>	‘shovel-nosed lobster’
MM:	Nduke	<i>epete</i>	‘shovel-nosed lobster, <i>Thenus</i> or <i>Ibacus</i> sp.’
MM:	Maringe	<i>p^hapate</i>	‘edible saltwater crustacean, crayfish-like’
SES:	Ghari	<i>tepe-tepe</i>	‘small crayfish of reef’ (metathesis?)

3.3 Suborder Natantia: true prawns and shrimps

In many Oceanic languages reflexes of **quraŋ* serve as the general name for prawns and shrimps and this was evidently the case in POc. However, a second term, **luRa*, has reflexes in certain Micronesian and Fijian languages.

PROc **luRa* ‘small shrimp’ (Geraghty 1990: PEOc)

Mic:	Ponapean	<i>lūr</i>	‘a small shrimp’
Mic:	Mokilese	<i>lūr</i>	‘a small shrimp’
Fij:	(unspecified)	<i>lua</i>	‘a small shrimp’

cf. also:

MM:	Sengseng	<i>e-lus</i>	‘freshwater shrimp’
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3.4 Suborder Anomura: hermit crabs, mud lobsters, half-crabs

The Anomura, which include hermit and coconut crabs, are not true crabs but form a suborder that is sister to true crabs (Brachyura). They have a long abdomen and appear to have only three pairs of walking legs, the last pair usually being hidden inside the gill chamber under the carapace. The Anomura are an extremely varied group and no Oceanic language has a name for the group as a whole.

3.4.1 Paguroidea: Coenobitidae (hermit and coconut crabs), and Diogenidae and Paguridae (sea-dwelling hermit crabs)

This group includes the familiar hermit crabs which carry a gastropod shell to protect their long soft abdomen. The coenobitids are terrestrial hermit crabs which have the left claw larger than or equal to the right. The coenobitids include the large coconut crab (or robber crab). The pagurids have a larger right claw. The sea-dwelling hermit crabs of the families Diogenidae and Paguridae are considerably larger than land-dwelling hermit crabs, growing up to 7 to 10 cm in length.

3.4.2 *Birgus latro*, coconut crab

There is a strongly supported reconstruction for the coconut crab, *Birgus latro*, which climbs coconut trees to sever coconuts and is widely believed by Oceanic communities to be able to

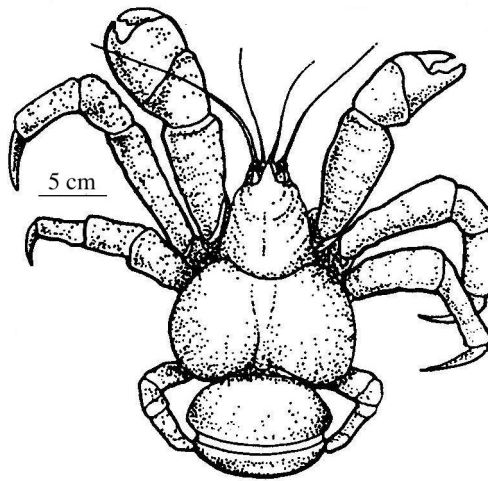


Figure 4.2 *Birgus latro*, coconut crab

open coconuts. This very large crab is considered a delicacy and has been hunted to extinction on some smaller islands.

PMP *qayuyu ‘coconut crab, *Birgus latro*’ (Blust 2002)

POc *qayuyu ‘coconut crab, *Birgus latro*’ (Blust 1972b)

Yap:	Yapese	ʔayūy	
Adm:	Mussau	aiu	
Adm:	Titan	kasusu	
Adm:	Wuvulu	aruru	(Blust 1996b:20)
PT:	Dobu	ʔayuyu	
SES:	Tolo	ui	
SES:	Lau	kasukasu	(*q > k irregular)
SES:	Sa’a	esusu	
SES:	Arosi	asusu	
SES:	Bauro	aū	
NCV:	Lonwolwol	au	‘small sand crab that runs into the sea at one’s approach’
NCV:	S Efate	as	(*y > s /_*u is regular) (John Lynch, pers. comm.)
NCal:	Iaai	eu	
Fij:	Rotuman	aruru	

PPn *qūqū ‘coconut crab, *Birgus latro*’ [(POLLEX)]

Pn:	Tongan	ʔūʔū
Pn:	E Futunan	ʔūʔū
Pn:	Tikopia	ū
Pn:	K’marangi	ū

POc *qayuyu was replaced in PMic by *afafi (Bender et al. 2003:12).

3.4.3 Hermit crabs

A number of Oceanic languages distinguish several kinds of hermit crabs by name. The distinguishing criteria include size, habitat (sea vs land) and growth stage. For example, for Niuean Sperlich (1997) records four taxa of hermit crab: *āo* ‘hermit crab, *Dardanus* sp.’, *pulou* ‘a hermit crab’, *uŋa-mea* ‘a land dwelling hermit crab’ and *uŋa-uŋa* ‘a sea dwelling hermit crab’. Hermit crabs are widely used as bait.

Three uninominal terms for hermit crabs are attributable to POc: **qum^waŋ*, **koba* and **kato(q)u*. It is unlikely that these terms were full synonyms. Unfortunately, the glosses provided for the reflexes in our sources are typically general and do not allow a semantic distinction to be made between the three POc terms.

**qum^waŋ* continues a PAN etymon. In Oceanic languages a reflex of this form commonly stands as a generic for typical hermit crabs, in contrast to coconut crabs. However, in several Oceanic languages reflexes have an extended sense that includes coconut crabs.

PAN **qumaŋ* ‘hermit crab’ (Blust 1980a)

POc **qum^waŋ* (1) ‘generic for hermit crabs’, ? (2) ‘generic for hermit and coconut crabs’

NNG:	Gedaged	(wa)gum	‘hermit crab’
NNG:	Manam	guma	‘hermit crab’
NNG:	Numbami	gubaŋa	‘hermit crab’
NNG:	Takia	gum	‘hermit crab’
PT:	Dobu	gumana	‘hermit crab’
PT:	Molima	gumana	‘hermit crab’
PT:	Gapapaiwa	gumaya	‘hermit crab’
PT:	Misima	go-gaman	‘hermit crab’
MM:	Tolai	quman	‘hermit crab, Paguridae sp.’
MM:	Tabar	guma	‘hermit crab’
NCV:	Paamese	o-umo	‘crab (generic)’
SV:	Anejoñ	n-umwan	‘k.o. small hermit-crab’ (-n unexplained)
NCal:	Pije	kum ^w a	‘ <i>Coenobita</i> sp.’
Fij:	Bauan	uŋa	‘hermit crab’
Fij:	Wayan	uŋa	(1) ‘hermit crab’, (2) ‘generic for hermit and coconut crabs’
		uŋa tolou	‘generic for hermit crabs’
		uŋa vule	‘coconut crab’

PPn **quŋa* ‘generic for hermit crab’ (POLLEX gives ‘hermit crab sp.’)

Pn:	Tongan	ʔuŋa	‘large hermit crab’
Pn:	Niuean	uŋa	‘coconut crab, <i>Birgus latro</i> ’
		uŋa-mea	‘land-dwelling hermit crab’
		uŋa-uŋa	‘sea-dwelling hermit crab’
Pn:	Samoan	uŋa	‘name given to hermit crabs in general’
Pn:	Tikopia	uŋa	‘hermit crab’
Pn:	Rennellese	ʔuŋa	‘hermit crab, <i>Coenobita</i> sp.’
		ʔuŋa mouku	‘forest-dwelling hermit crabs’
		ʔuŋa pūŋou	‘sea-dwelling hermit crab carrying the pūŋou parasite’

A second term, **koba*, is less widely attested but reflexes are found in the Admiralties, Meso-Melanesian (in Northwest Solomonic) and Southeast Solomonic.

POc **koba* ‘hermit crab’

Adm:	Penchal	(<i>kai</i>) <i>kop</i>	‘hermit crab’
MM:	Marovo	<i>koba</i>	‘generic for hermit crabs’
MM:	Nduke	<i>koba</i>	‘generic for hermit crabs’
SES:	Gela	<i>koba</i>	‘generic for hermit crabs’
SES:	Ghari	<i>koba, ko-koba</i>	‘hermit crab’
SES:	Tolo	<i>ko-koba</i>	‘hermit crab’

A third term has reflexes in Mussau, Southeast Solomonic and North-Central Vanuatu.

POc **kato(q)u* ‘hermit crab’

Adm:	Mussau	<i>kitou</i>	
SES:	Arosi	<i>kawou, kou</i>	‘hermit crab, <i>Coenobita</i> spp.’
SES:	Bauro	<i>gou</i>	

PNCV **kato(q)u* ‘hermit crab’ (Clark 2009 gives **katou*)

NCV:	Mota	<i>gatou</i>
NCV:	Raga	<i>gatou</i>
NCV:	Tamambo	<i>hatou</i>
NCV:	Nguna	<i>katou</i>
NCV:	Namakir	<i>kato?</i>

3.4.4 Other Anomura: *Thalassina*, mud lobsters, and Porcellanidae, porcelain crabs (half-crabs)

There are only two species of *Thalassina*, the distinctive ‘mud lobster’ of the Indo-Pacific region, a nocturnal animal that digs a deep and intricate network of burrows in mangrove mudflats. It typically grows up to 16–20 cm long. *Thalassina* are found as far east as Fiji and Samoa. The meat is bland and this animal is not a prized source of food but it is trapped for its edible claws in parts of Fiji. In the few dictionaries that provide names for the mud lobster each language has its own generic, e.g. Gedaged *gumei*, Nduke *zoua*, Roviana *zoa*, Bauan Fijian *manā*, Western Fijian *tolā*, No POc reconstruction is possible.

Porcelain crabs (or half-crabs) are small, usually 1–2 cm wide. They are common on rocky beaches and shorelines. Names for porcelain crabs are seldom given in Oceanic dictionaries and no widespread cognate set has been found.

3.5 Brachyura: true crabs

True crabs are the dominant decapods on marine coasts. In true crabs (tribe Brachyura) the front pair of legs are clawed and the abdomen is reduced, flattened and folded underneath the carapace. Eggs are attached to the pleopods of the female’s abdomen. Of the many crab species only a minority are of economic value to Oceanic communities.

Oceanic speaking communities exploiting reefs and mangrove swamps typically distinguish between 20 and 30 crab taxa, excluding crabs of the tribe Anomura. For example, dictionaries of Arosi, Wayan Fijian and Niuean, list about 30, 33 and 22 taxa, respectively, excluding the Anomura. There is little doubt that POc would have had a similar array. However,

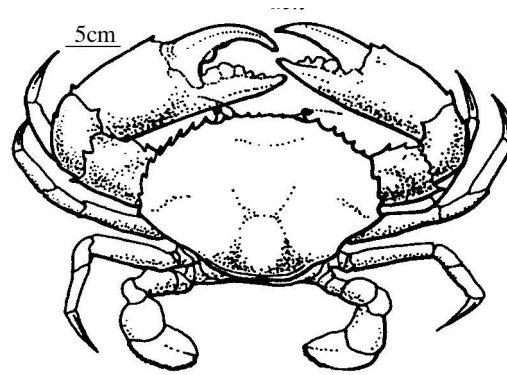


Figure 4.3 *Scylla serrata*, mangrove crab

only seven secure POc terms for Brachyura crabs have been reconstructed: **kape*, **kaRaka*, **kaRu(i)ki*, **kuka*, **qalimaŋo*, **rakum(u)*, **tubaRa*.

3.5.1 Portunidae, mangrove and swimming crabs

Oceania has many species of portunids, belonging to the genera *Portunus*, *Thalamita* and *Charybdis*. Most are large crabs, much valued as food. The English folk names ‘mud crab’, ‘mangrove crab’ or ‘black crab’ are often applied to *Scylla serrata*, a large round crab which may exceed 20 cm in width and which burrows in muddy shallow tidal waters of estuaries and mangrove swamps. POc continues a PMP term, **qalimaŋaw*, that probably denoted several portunids of the genus *Scylla*. Wolff’s dictionary of Cebuano describes *alimaŋu* as ‘edible crab of tidal swamps, round in shape, up to 10 inches in diameter, black on back, white front, large meaty claws’, unmistakably a large *Scylla* sp.

PMP **qalimaŋaw* ‘mangrove crab’ (Blust 1980a)

POc **qalimaŋo* ‘large mangrove crab, *Scylla serrata* (Portunidae) and probably other portunids’

NNG:	Kove	<i>alimaŋo</i>	‘mangrove crab’
PT:	Molima	<i>kalimana</i>	‘mangrove crab’
PT:	Dobu	<i>kalimana</i>	‘large black crab’
		<i>?alimana</i>	(ditto)
PT:	Kilivila	<i>keimagu</i>	‘large mud crab’
MM:	Teop	<i>animano</i>	‘k.o. swamp crab’
SES:	Lau	<i>alimaŋo</i>	‘largest sp. of crab, found on outer reef, black’
SES:	‘Are’are	<i>alimano</i>	‘big crab living in mangrove swamps’
SES:	Arosi	<i>arimaŋo</i>	‘very large crab with paddles, found in mangrove swamps’
SES:	To’aba’ita	<i>alimaŋo</i>	‘mangrove crab’
Mic:	Ponapean	<i>elimon</i>	‘mangrove crab’
Mic:	Carolinian	<i>alimon</i>	‘large sea crab with red-orange shell’
Mic:	Puluwatese	<i>yelimon</i>	‘a seacrab smaller than mangrove crab’
Mic:	Chuukese	<i>ɔnimɔŋ</i>	‘mangrove crab’
Fij:	Rotuman	<i>?ɔimɔnu</i>	‘k.o. crab’

Pn: Samoan (paʔa)limaŋo ‘large edible mud crab, *Scylla* sp.’ (paʔa ‘generic for crabs’)

3.5.2 *Cardisoma* spp. and other large land crabs

The large land crabs, *Cardisoma* spp., are an important food source in many Oceanic communities and there are often several terms referring to their growth stages and spawning behaviour. For example, Foale (1998) reports that in West Gela (central Solomons) females of the abundant land crab *Cardisoma hirtipes* migrate to the beach at certain phases in the lunar cycle in the wet season, from October to December, releasing zoea larvae from their egg mass (*lami*). This is known as the *sau lami* (wash eggs). Three weeks before doing this they migrate to the sea to immerse themselves, an event known as the *sapa toga* (thousands go seawards). This is the preferred time to take them because they are fatter. In Fiji, Wayans refer to the mass migration of *C. hirtipes* as *vui*.

POc **tubaRa* ‘probably generic for large land crabs, *Cardisoma* spp.’ (cf. Geraghty 1990)

PT:	Motu	<i>dubara</i>	‘small land-crab’
MM:	Tolai	<i>tubara</i>	‘land-crab’
SES:	Gela	<i>tumbala</i>	‘ <i>Cardisoma carnifex</i> , white land crab’
SES:	‘Are’are	<i>opara</i>	‘k.o. crab’
NCV:	Mota	<i>tipara</i>	‘k.o. land crab’
SV:	Sye	<i>tupo</i>	‘a large land crab’
SV:	Kwamera	<i>tup^wa</i>	‘k.o. landcrab’
Fij:	Rotuma	<i>fupa</i>	‘land crab’
Fij:	Wayan	<i>tubā</i>	‘generic for large land crabs, esp. <i>Cardisoma</i> spp.’

PPn **tupa* ‘landcrab’ (POLLEX)

Pn:	Samoan	<i>tupa</i>	‘land crab sp. with large claws’
Pn:	Tongan	<i>tupa</i>	‘k.o. land crab’
Pn:	Tikopia	<i>tupa</i>	‘large land crab, keenly sought for food’
Pn:	Rarotongan	<i>tupa</i>	‘ <i>Cardisoma cardifax</i> , edible land crab’

cf. also:

MM:	Nduke	<i>tubavu</i>	‘ <i>Cardisoma</i> sp., probably <i>C. hirtipes</i> ’
SES:	Ghari	<i>tubā</i>	‘a species of land crab’ (for † <i>tubala</i>)

POc **rakum(u)* is a well attested form which probably referred to a crab of some importance. Some witnesses (e.g. Kove, Bugotu, Namakir, Woleaian) support attributing final **u* to this etymon; others are equivocal. Most sources give uninformative glosses for reflexes of **rakum(u)* but in Mangap (North New Guinea), Roviana (Meso-Melanesian), Puluwatese and Ponapean (Micronesian), and SE Ambrym (North and Central Vanuatu) these refer to a land crab. In several languages the reflex has become a term for crabs in general.

POc **rakum(u)* ‘k.o. large crab, probably a land crab’

Adm:	Lou	<i>roum</i>	‘k.o. crab’
NNG:	Manam	<i>rakum</i>	‘k.o. big, red crab’
NNG:	Mangap	<i>rukum</i>	‘general name for crabs’
PT:	Dobu	<i>lakua</i>	‘generic for crabs’ (loss of * <i>m</i> irregular)

PT:	Kilivila	<i>lakum</i>	‘small mud crab’
PT:	Muyuw	<i>lakum</i>	‘crab’
PT:	Gapapaiwa	<i>rakum</i>	‘k.o. crab’
MM:	Tabar	<i>raku</i>	‘crab’
MM:	Roviana	<i>garumu</i>	‘ <i>Cardisoma carnifex</i> , white land crab’ (metath.)
SES:	Bugotu	<i>ragomu</i>	‘a crab’
NCV:	SE Ambrym	<i>oum</i>	‘land crab’
NCV:	Namakir	<i>rakum^w</i>	‘land crab’
NCV:	Neve’ei	<i>nu-ruk^hum</i>	‘a crab’
SV:	Sye	<i>a-royum</i>	‘k.o. crab’
SV:	Anejoñ	<i>n-ray</i>	‘k.o. crab’
Mic:	Ponapean	<i>rokum^w</i>	‘sp. of small land crab’
Mic:	Puluwatese	<i>rōkum</i>	‘large land crab’
		<i>rōkum(ihæet)</i>	‘common black sea crabs’
Mic:	Woleiaian	<i>zaxum^wu</i>	‘crab (generic)’
cf. also:			
NNG:	Kove	<i>laumu</i>	‘k.o. crab, said to be western dialect for sand crab, called <i>karoki</i> in eastern dialect’

3.5.3 Grapsidae, (1) shore crabs, (2) burrowing crabs of mud flats

The most commonly seen shore crabs are the grapsids, which forage among rocks and coral rubble in the intertidal zone. The carapace is squarish, with very convex edges. The last pair of legs are not flattened but are adapted for climbing over rocks. There are several genera, including *Grapsus*, *Sesarma*, *Metopograpsus*, and *Leptograpsus*. Oceanic languages typically distinguish several grapsid taxa. For example, Wayan distinguishes two main taxa within the Grapsidae: mangrove crabs (*Sesarma* spp., *Metopograpsus* spp.), which are *kuka*, and shore (or rock) crabs (*Grapsus* spp.), which are *galau*, as well as dividing the generics *kuka* and *galau* into further subtaxa.

3.5.4 *Sesarma* spp., mangrove grapsids

Judging by its reflexes in EOc languages POc **kuka* referred chiefly to grapsids of the genus *Sesarma*, which live in mangrove forest mudflats. In Tolai (MM), Arosi and To’aba’ita (SES) and Lonwolwol (NCV) the reflex has become a generic term for crabs.

POc **kuka* ‘mudcrab, including *Sesarma* sp. or spp., living in mangrove forest and mudflats’

MM:	Tolai	<i>kuka</i>	‘generic for crabs’
MM:	Maringe	<i>kok^ha</i>	‘hermit crab’
MM:	Sursurunga	<i>kuk</i>	‘crab’
SES:	Arosi	<i>kuka</i>	‘generic term for crabs, excluding the Anomura and possibly portunids’
SES:	To’aba’ita	<i>ʔuʔa</i>	‘general term for a variety of crabs, excluding hermit crabs and cocout crabs’ (syn. <i>ʔuda</i>)
SES:	Lau	<i>ūa</i>	‘a crab’

		<i>uā fou</i>	‘large sea crab’
		<i>uā sū</i>	‘very large reef crab’
SES:	‘Are’are	<i>ʔuʔa</i>	‘k.o. mud crab’
		<i>ʔuʔa(puru)</i>	‘a land crab’
NCV:	Port Sandwich	<i>na-xux</i>	‘crab’
NCV:	Lonwolwol	<i>(lo)kuk</i>	‘crab (generic)’
Fij:	Bauan	<i>kuka</i>	‘small red and black crab, found in mangrove swamp’
Fij:	Wayan	<i>kuka</i>	‘crabs of mangrove swamps, red claws, black carapace, <i>Sesarma</i> and <i>Metopograpsus</i> spp.’
PPn <i>*kuka</i> ‘mangrove crab, <i>Sesarma</i> sp. or spp.’ (POLLEX)			
Pn:	Tongan	<i>kuka</i>	‘k.o. crab’
Pn:	Samoa	<i>ʔuʔa</i>	‘common mangrove crab, <i>Sesarma</i> sp.’

Reflexes of POc **kape* typically refer to a kind of reef crab (Roviana, Gela, Rotuman). In Raga the reflex has become a generic term for crabs and in Arosi and Mota it appears to serve as a generic for a subclass.

POc **kape* ‘crab taxon, probably a rock crab (Grapsidae)’

Adm:	Lou	<i>kah</i>	‘shell of crab or bivalve mollusc’
NNG:	Sengseng	<i>kahe</i>	‘crab’
NNG:	Mengen (Poeng)	<i>kape</i>	‘crab’
NNG:	Adzera	<i>wafi</i>	‘crab’
NNG:	Middle Watut	<i>kʷafi</i>	‘crab’ (Holzknecht 1989)
MM:	Roviana	<i>gave</i>	‘ <i>Metasesarma rousseauxii</i> ’
SES:	Gela	<i>gave</i>	‘reef crab’
SES:	Ghari	<i>gave raqasi</i>	‘shore crab, <i>Grapsus</i> sp.’
SES:	To’aba’ita	<i>ʔafe</i>	‘flat crab, ? <i>Perchnon planissimum</i> ’
SES:	‘Are’are	<i>ʔahe</i>	‘a sea crab’
SES:	Arosi	<i>ʔahe</i>	‘first element, serving as generic classifier in names of several different species’
		<i>ʔahe-haruta</i>	‘a large sea crab’
		<i>ʔahe-roma</i>	‘a red crab’
		<i>ʔahe-toʔo</i>	‘a small land crab’
SES:	Sa’a	<i>ʔahe</i>	‘a crab’
NCV:	Mota	<i>gave</i>	‘several spp. of crab’
NCV:	Raga	<i>gave</i>	‘generic for marine and land crabs’
NCV:	Paamese	<i>æh</i>	‘kind of crab found on rocks’
NCV:	Nguna	<i>kāve</i>	‘sp. of rock crab, black’
NCV:	Uripiv	<i>na-aw</i>	‘various kinds of shore crabs’
SV:	Sye	<i>n-ev(lah)</i>	‘a crab’
Fij:	Rotuman	<i>ʔæhe</i>	‘k.o. reef crab, reddish with very flat back’

3.5.5 Ocypodidae long-stalked crabs (ghost crabs fiddler crabs soldier crabs)

The Ocypodidae are a very distinctive group of small crabs, with eyes on stalks, common on sandy beaches, mudflats and mangrove forests. There are several genera: *Ocypoda* spp., ghost crabs, *Uca* spp., fiddler crabs, and *Macrophthalma* spp., sentinel or soldier crabs. Oceanic languages typically distinguish more than one kind by name. Wayan has a generic for ghost crabs, *koke*, and two specifics for subtaxa. It has a separate generic, *tōtō*, for fiddler and sentinel crabs.

There is a well-supported POc term for ghost crabs, which continues a PMP etymon, **kaRuki*. WOc and Micronesian witnesses point to POc **kaRuki*. However, Geraghty (1990: 62) reconstructs **kaRuiki* to account for the agreement between Chamorro *haguiki* (doublet *haguhi*) and the Central Pacific forms. For both POc and PCP it seems preferable to posit doublets, which perhaps were careful and fast speech variants. Polynesian and Rotuman reflexes of PCP **kauiki* show reanalysis of unstressed intervocalic **u* as **w*, with subsequent change of **w > v* in some languages.

PMP **kaRuki* ‘sand crab, *Ocypoda* sp.’ (cf. Blust 1983-84a)

POc **kaRuki*, (dbl. **kaRuiki*) ‘ghost crab, *Ocypoda* sp., small white crab found on sandy beaches’ (cf. Geraghty 1990)

NNG:	Hote	<i>kaluk</i>	‘crab’
NNG:	Manam	<i>garuku</i>	‘k.o. little crab’
NNG:	Kove	<i>karoki</i>	‘middle-sized crab found in holes on beaches’
NNG:	Bukawa	<i>galu?</i>	‘crab’
NNG:	Mangap	<i>kerek</i>	‘crab type, small, used as bait’
MM:	Vitu	<i>karoki</i>	‘crab’
Mic:	Kiribati	<i>kauki</i>	‘ghost crab’
Mic:	Marshallese	<i>karuk</i>	‘white sand crab’
Mic:	Kosraean	<i>kuluk</i>	‘sand crab’

PCP **kauki*, **kawiki* ‘ghost crab, *Ocypoda* sp.’

Fij:	Rotuman	<i>ʔaviʔi</i>	‘sand crab’
Fij:	Bauan	<i>kauke</i>	‘ghost crab, <i>Ocypoda</i> sp.’
Fij:	Wayan	<i>koke</i>	‘ghost crab, <i>Ocypoda</i> spp.’

PPn **kawiki* ‘ghost crab, *Ocypoda* sp.’

Pn:	Tongan	<i>keviki</i>	‘small light-coloured sand crab’
Pn:	Samoa	<i>ʔaviʔi</i>	‘ghost crab, <i>Ocypoda</i> sp.’
Pn:	Tikopia	<i>kaviki</i>	‘ghost crab, <i>Ocypoda</i> sp.’
Pn:	Hawaiian	<i>ʔohiki</i>	‘sand crab, probably <i>Ocypoda</i> sp.’
		<i>ʔohiki-ʔau-moana</i>	‘ocean crab, possibly <i>Planes</i> or <i>Pachygrapsus</i> sp.’

There is another form partially resembling **kaRu(i)ki* that is attributable at least to PEOc, showing **-pe* instead of **-ki* in the final syllable. This has reflexes in Southeast Solomonic and North and Central Vanuatu languages and in at least one Micronesian language.

PEOc **kaRuve* ‘k.o. beach crab, probably *Ocypoda* sp., ghost crab’

SES:	Ghari	<i>galuve</i>	‘small land crab’
SES:	Arosi	<i>karuhe</i>	‘burrowing sand crab’
NCV:	Mota	<i>yarwe</i>	‘a ghost crab’

NCV:	Mwotlap	<i>na-yjɔw</i>	‘ghost crab’
NCV:	Nguna	<i>kāp^we</i>	‘ghost crab’
NCV:	Port Sandwich	<i>xauv</i>	‘beach crab’
NCV:	Lonwolwol	<i>kawiu</i>	‘ghost crab’
Mic:	Woleaian	<i>xazipe</i>	‘beach crab’

cf. also:

NNG:	Mutu	<i>garuru</i>	(1) ‘ghost crab, <i>Ocypoda</i> sp.’ (2) ‘soldier crab, <i>Mictyris</i> sp.’
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No language is known to have reflexes of both **kaRu(i)ki* and **kaRuve*.

The following PEOc reconstruction is not very secure, resting on agreements between two Central Pacific languages and one Southeast Solomons language.

PEOc (?) **kakaka* ‘small shore crab, possibly *Ocypoda* sp.’ (Geraghty 1990)

SES:	To’aba’ita	<i>kākaka</i>	‘ <i>Ocypoda</i> sp., ghost crab’
Fij:	Rotuman	<i>kaʔ-kaʔa</i>	‘small beach crab, one claw much bigger than the other, spreads its claws when approached’
Fij:	W. Fijian	<i>kakaka</i>	‘k.o. land crab, possibly <i>Sesarma</i> sp.’ (Geraghty 1990)

cf. also:

PT:	Misima	<i>kakalisu</i>	‘ghost crab’ (final <i>-su</i> unexplained)
MM:	Marovo	<i>kaka(rita)</i>	‘mangrove crab, <i>Scylla serrata</i> ’
		<i>kaka(bacha)</i>	‘small, hairy sea crab, poisonous’

3.5.6 Crabs of uncertain family and families lacking reconstructed names

For some reconstructed crab names no secure family identification can be made. Geraghty (1990:61) reconstructs PEOc **kaRaka* ‘k.o. crab’. Extra-Oceanic cognates occur in Palauan *kesako* ‘k.o. land crab’ and Chamorro *hagahat* ‘rock crab’ and these comparisons point to POc **kaRaka*.

PMP **kaRakap* ‘probably rock crab’ (ACD)

POc **kaRaka* ‘k.o. crab, possibly rock crab.’ (cf. Geraghty 1990)

NNG:	Takia	<i>karag</i>	‘crab’
NNG:	Gedaged	<i>kalag</i>	‘k.o. crab’
Fij:	Bauan	<i>gaka</i>	‘mangrove crab’
Pn:	Niuean	<i>keka</i>	‘small sea crab sp.’
Pn:	Tongan	<i>kaka(fatu)</i>	‘k.o. crab’ (<i>fatu</i> ‘rock’)

cf. also:

Mic:	Kiribati	<i>kakawa</i>	‘k.o. small crustacean’
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The following reconstruction is tentative.

POc **(g,k)alau* ‘k.o. shore crab, possibly a grapsid sp.’

NNG:	Gedaged	<i>kalau</i>	‘small crab found under rocks’
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Fij:	Wayan	<i>galau</i>	‘grapsid crabs of the shore’
cf. also:			
NNG:	Zivo	<i>kulau</i>	‘k.o. crab’

3.5.7 Xanthoidea

The Xanthoidea comprises several families, including Xanthidae, Menippidae and Trapeziidae. Xanthidae are the typical crabs of coral reefs, emerging at night. There are many species, quite variable in form but the carapace is usually broad in front, narrow at the rear. Some species are poisonous. The menippids and trapezids are similar in appearance to the xanthids. Wayan distinguishes at least three different xanthoids: *motodī* (some Xanthidae and Menippidae), *vulau* (some Xanthidae and Trapeziidae) and *galau ni waitaōi* (probably *Libinia tessellata*). No POc terms are reconstructable for this group.

3.6 Generic terms for crabs

Many Oceanic languages have a uninomial that refers to crabs in general or at least to a large subclass of crabs, e.g. Molima *kakaʔu*, Maringe *kʰakau* ‘crabs in general’, To’aba’ita *ηuda* (syn. *ʔuʔa*) ‘general term for crabs except hermit crabs and coconut crabs’. Dictionaries of many Polynesian languages (including Samoan, East Uvean, East Futunan, Pukapuan and Tikopia) describe a reflex of PPn **paka* as ‘a general term for crabs’ or similar. However, one must view such glosses with some caution, unless it is clear that the authors have carefully investigated whether all groups of crabs fall under this rubric.

Often the generic for crabs also serves as the name of a particular crab taxon that is an important food source – a kind of polysemy that is common in folk taxonomies worldwide. For example, in Bauan Fijian the name *gari*, specifically applied to large mud crabs of the genus *Scylla*, is extended to embrace all typical crabs (tribe Brachyura) other than large land crabs (*Cardisoma* spp.). The same is true of the Wayan term, *seka*. However, Wayans do not regard hermit crabs, coconut crabs and *Thalassina* (all of which are members of the tribe Anomura) as *seka*.

While it is likely that POc had a general term covering some or all crabs we can do little more than point to three candidates. The strongest of the candidates is probably **kuka*.

As noted in §3.5.4, reflexes of POc **kuka*, which probably referred chiefly to grapsid crabs that live in mangrove swamps, esp. those of the genus *Sesarma*, serve as a general term for crabs, or at least typical crabs (i.e. other than Anomura) in certain languages belonging to three different subgroups: Tolai (MM), Arosi and To’aba’ita (SES), and Lonwolwol (NCV). Reflexes of **kuka* may occur more widely as a generic – relatively few dictionaries and wordlists provide precise statements about which crab names serve as generics.

Reflexes of POc **rakum(u)* (§3.5.2) occur as a general name for crabs in at least one North New Guinea language, Mangap, one Papuan Tip language, Dobuan, and one Micronesian language, Woleaian.

A term for another grapsid group, POc **kape* (§3.5.4), has become a generic covering both true crabs and hermit crabs in most or all NCV languages (François, pers. comm.). In Mota and Uripiv (both NCV) the reflex of **kape* appears to serve as a generic for a variety of rock or shore crabs. There are signs that the Arosi reflex of **kape* was once a generic for a range of sea and land crabs because this form now appears only as the first element in several Arosi compounds.

3.7 Other crustaceans

3.7.1 Mantis shrimps (order Stomatopoda)

The mantis shrimps, Stomatopoda, are a distinctive group represented by *Squilla* spp. and other genera. The fierce, predatory mantis shrimps are prominent denizens of the intertidal zone. They burrow in sand or hide in crevices and ambush prey. Few sources give names for these creatures. Among the handful of terms that have been noted, e.g. Gedaged *kalompit*, Nduke *hahaka*, Wayan *vidividi*, no widespread cognate set has been found.

3.7.2 Barnacles (class Cirripedia, order Thoracia)

Barnacles are shrimp-like crustaceans that superficially resemble externally shelled molluscs. They attach themselves by the head to a surface and grow a shelly wall of protective plates. There is a Proto Cristobal-Malaitan form that may have referred to barnacles. This form has possible cognates in two Meso-Melanesian languages of the western Solomons.

Proto Malaita-Makira **sisira* ‘a barnacle or kind of small mollusc’

SES:	’Are’are	<i>sisire</i>	‘k.o. small shellfish that clings to mangrove roots’
SES:	Arosi	<i>sisire, sire-sire</i>	‘barnacle’
SES:	Lau	<i>sisile</i>	(1) ‘barnacles’, (2) ‘very small molluscs (generic)’
SES:	Sa’a	<i>sisile</i>	‘k.o. shellfish’

cf. also:

MM:	Roviana	<i>zere</i>	‘barnacle’
MM:	Maringe	<i>sisira</i>	‘seashell, a cowry, <i>Cypraea tigris</i> ’

PCP **jove* ‘k.o. shellfish or barnacle’ (cf. Geraghty 1986)

Fij:	Bauan	<i>sove</i>	‘barnacle’
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PPn **tofe* ‘k.o. bivalve’

Pn:	Tongan	<i>tofe</i>	‘pearl oyster’
Pn:	Niuean	<i>tofe</i>	‘k.o. edible cockle, white’
Pn:	E Futunan	<i>tofe</i>	‘k.o. shellfish’
Pn:	Samoan	<i>tofe</i>	‘ <i>Perna</i> sp.’
Pn:	Rennellese	<i>tohe</i>	‘small white bivalve or barnacle, as on floating logs; edible’ (<i>tohetohea</i> ‘thickly crusted with <i>tohe</i> ’)

3.8 Growth stages and sexes of crustaceans

Oceanic communities often have distinct names for various growth stages and sexes of important crabs, particularly the larger land crabs and coconut crabs. However, no widespread cognate sets of this sort have been found.

3.9 Body parts of crustaceans

Oceanic languages have names for various parts of crustaceans, e.g. Niuean *tuke* ‘thorax of a crab’, *ami* ‘crab roe’, *afo una* ‘breeding cord of a female coconut crab’, *nifo* ‘nippers of land crab, etc.’ One secure reconstruction can be made.

PEOc **Rami* 'crustacean roe' (Geraghty 1990)

SES:	Gela	<i>lami</i>	'spawn of crabs'
SES:	Arosi	<i>rami</i>	'eggs of crabs or crayfish'
NCV:	Mota	<i>rame(ai)</i>	'eggs of crayfish, crabs, etc.'
		<i>rame</i>	'cover with eggs'
NCV:	Raga	<i>ami(ni)</i>	'crustacean eggs'
NCV:	Uripiv	<i>ni-ami(n)</i>	'crab's eggs'

PPn **ami* 'crustacean roe' (POLLEX)

Pn:	Tongan	<i>ami</i>	'crab and lobster roe'
Pn:	Samoa	<i>ami</i>	'roe of crabs and other crustaceans'
Pn:	Tokelaun	<i>ami</i>	'roe of crustaceans'

4 Molluscs

4.1 Molluscs as a resource in Oceanic communities

Molluscs are very important sources of protein food in Oceanic-speaking coastal communities. A survey of the Milne Bay coral reef systems recorded 945 species of molluscs living in reef habitats (Kinch 1999, Wells and Kinch, 2003). That figure excludes the many species that occupy mangrove and mudflat habitats, which were not surveyed. While the Milne Bay region has one of the richest marine faunas in the Pacific, it exemplifies the abundance of mollusc resources available to communities living close to coral reef systems.

Unfortunately, few good ethnographic descriptions exist of shellfishing in Oceanic communities. Languages for which there are near exhaustive lists of mollusc terms distinguish upwards of 100 taxa. Cèmuhi of New Caledonia has around 133 terms for molluscs (Rivierre 1994) and Paicî, another New Caledonian language, has around 100 (Rivierre 1983), Wayan (Western Fijian) distinguishes more than 140 mollusc taxa, including 105 gastropod, 35 bivalve and four chiton taxa (Pawley and Sayaba 2003). Fox's (1978) dictionary of Arosi gives 104 names for kinds of molluscs. Sources for a number of other languages give impressive totals that are unlikely to be exhaustive. Fox (1974:93) reports that the Lau of NE Malaita name some 75 kinds of shells. Churchward's Tongan dictionary lists 63 names for kinds of shellfish. Waterhouse lists some 60 names for shelled mollusc taxa for Roviana and White (1988) gives 53 such names for Maringe (Cheke Holo).

One of the few good ethnographic accounts is a description of shellfishing at Nukakau Island, West New Britain, by Swadling and Chowning (1981). For the people of Nukakau, who speak Kove, shellfish are "especially important when fishing is poor and the weather too rough for fishing parties to go out" (p.159). The three species that are most collected are three bivalves: *Geloina coaxans* (Kove *tue*), which are gathered in mangrove forests, *Andara granosa* (Kove *masilau*), gathered from estuarine mudflats, and *Andara antiquata* (Kove *uleule*), taken from weed-covered coral reef flats. The shells of the first of these are also used as cutting and scraping tools.

The importance of shellfish to speakers of Proto Oceanic and its immediate descendants is shown by the large quantities of gastropod and bivalve shells, and artefacts made from shell, that are found in Lapita sites (Gifford & Shutler Jr 1956, Kirch 1997, Spriggs 1997, Swadling

1977, 1996) and other archaeological sites associated with Oceanic languages. Gifford and Shutler (1956) identified at least 74 species of molluscs occurring in Lapita sites in New Caledonia. Swadling (1977) reports 54 mollusc species from the Taurama sequence in Central Province, Papua New Guinea, beginning around 2000 BP. Tools made from shells included one-piece fishhooks, adzes made from *Tridacna* valves and food scrapers from various shell families. Kirch writes that shell valuables in Lapita sites included “rings, disks, beads and worked rectangular sections made from various species of marine shell, especially large cone shells (*Conus leopardus*, *C. litteratus*), *Spondylus* oysters, *Tridacna* clam shells and *Trochus* shells” (Kirch 1997:236).

4.2 Class Gastropoda: univalves

The larger Pacific islands and island groups have extensive and varied communities of gastropods. On the reefs the following families are prominent: Arciidae, Conidae, Strombidae, Trochidae, Turbinidae. On rocky shores and in mangrove swamps the Neritidae and Cerithiidae predominate.

POc reconstructions have been made for only a minority of families. A total of seven POc terms for gastropods are reconstructed here: **buli(q)*, **buRua*, **lala(k)*, **qaliliŋ*, **Raŋa*, **sisiq*, **tapuRi*. This is probably less than ten percent of the number of gastropod taxa named in POc.

4.2.1 Strombidae, strombs, spiders, conches

Strombids are the well-known conch and spider shells, which live in sandy and rocky reef areas. The strombids are an important food source in Oceanic coastal communities. There is a widely-reflected reconstruction for the spider conch, *Lambis lambis*. It is likely that this term served as a generic for a range of spider shell taxa, as its reflex does in some daughter languages.

PMP **Raŋa*, **Raŋak* or **Raŋar* ‘the spider conch, *Lambis lambis*’ (Blust 1989)

POc **Raŋa* ‘*Lambis* spp., esp. spider conch, *Lambis lambis*’

NNG:	Mangap	<i>ra</i>	‘spider shell’
PT:	Iduna	<i>laga</i>	‘ <i>Lambis scorpius</i> , <i>Strombus sinuatus</i> ’
MM:	Tabar	<i>raŋ</i>	‘ <i>Lambis truncata sebae</i> ’
SES:	Arosi	<i>raŋa</i>	‘spider shell, with long spines’
NCV:	Uripiv	<i>ni-raŋ</i>	‘ <i>Lambis</i> sp.’
Mic:	Kiribati	<i>ne-aŋ</i>	‘spider shell, <i>Lambis</i> sp.’
Mic:	Puluwatense	<i>(le)yaŋ</i>	‘spider shell’
Mic:	Woleaian	<i>(re)yaŋa</i>	‘k.o. sea shell’
Mic:	Ponapean	<i>lāŋ</i>	‘spider shell’
Fij:	Bauan	<i>yaŋa</i>	‘generic name for some varieties of shellfish: <i>Pterocera</i> and <i>Lambis</i> sp.’
Fij:	Wayan	<i>eŋa</i>	(1) ‘ <i>Lambis truncata</i> ’ (2) ‘generic for Strombidae’

cf. also:

MM:	Maringe	<i>cega</i>	‘spider conch incl. <i>Lambis</i> sp.’
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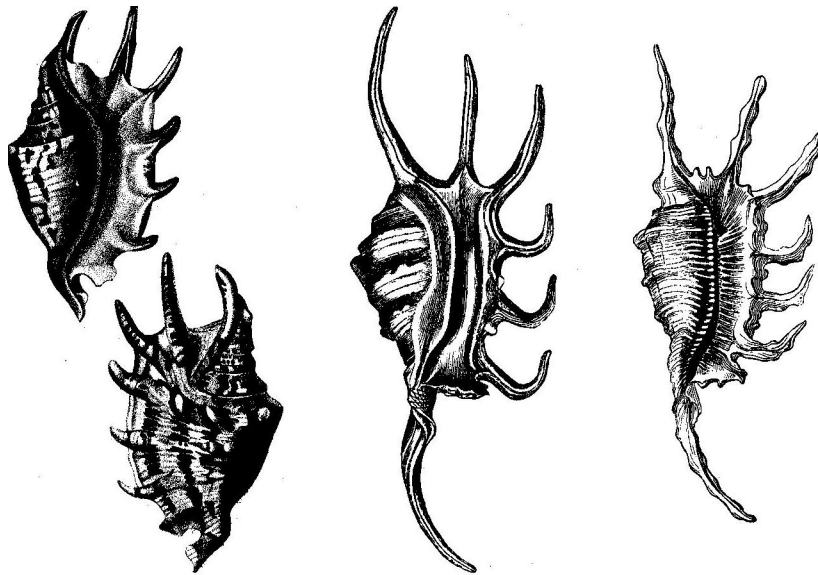


Figure 4.4 *Lambis* spp., spider conches

4.2.2 Turbinidae, turbans

The turbans are herbivorous grazers common on intertidal and subtidal reefs, well-known for the operculum or ‘cat’s eye’ which the animal uses to close off the entrance to its shell. Turbans are an important food resource. Wayan has a generic for turbans, *kerekere*, as well as names for several subtaxa, and this pattern appears to be typical of Oceanic languages.

4.2.3 *Turbo petholatus*

For the tapestry turban, *Turbo petholatus*, there is a well-attested POc reconstruction, **qaliliŋ*, which continues a PMP etymon. This term may have served as a generic for the genus.

PMP **qaliliŋ* ‘cat’s eye shell’ (some reflexes indicate initial **w*)⁶

POc **qaliliŋ* ‘*Turbo petholatus*, tapestry turban; possibly generic for several or all *Turbo* spp.’

MM:	Tolai	<i>kaliliŋ</i>	‘k.o. shell fish’
SES:	Gela	<i>lili</i>	‘ <i>Turbo</i> spp. (generic)’
SES:	Lau	<i>salili</i>	‘ <i>Turbo petholatus</i> ’
SES:	To’aba’ita	<i>thalili</i>	‘sp. of turban shell, possibly tapestry turban, <i>Turbo petholatus</i> ’
SES:	’Are’are	<i>rariri</i>	‘k.o. small shellfish, with cat’s eye’
NCV:	Tamambo	<i>(h)alili</i>	‘cat’s eye shell’
NCV:	SE Ambrym	<i>lili</i>	‘operculum of green snail’
NCV:	Namakir	<i>ʔalil</i>	‘cat’s eye shell’

PPn **qalili* ‘cat’s eye shell, *Turbo* sp.’ (POLLEX)

Pn:	Tongan	<i>ʔelili</i>	‘a shellfish with cat’s eye’
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⁶ Blust (1980a) gives this form as PWMP but Oceanic cognates allow it to be attributed to PMP.

Pn:	Niuatoputapu	<i>ʔelili</i>	‘ <i>Turbo</i> sp.’
Pn:	Rennellese	<i>ʔaŋiŋi</i>	‘turban shells, <i>T. petholatus</i> , used for spoons’
Pn:	Samoa	<i>alili</i>	‘a mollusc, <i>Turbo</i> sp.’
Pn:	Tikopia	<i>alili</i>	‘greensnail; <i>Turbo</i> spp. incl. <i>T. marmoratus</i> , <i>T. bargyrostromus</i> , <i>T. setosus</i> ’

4.2.4 Other *Turbo* taxa

Usually a number of turban shell taxa are named, sometimes by a compound using a reflex of **mata* ‘eye’, with reference to the operculum. The second element of PEOc **mata-buku* is probably **buku* ‘knot, lump, protruberance’.

PEOc **mata-buku* ‘*Turbo* spp.’

SES:	Lengo	<i>mata-puku</i>	‘Turbinidae’
Fij:	Wayan	<i>mata-buku</i>	‘ <i>Turbo</i> spp., possibly including <i>T. chrysostoma</i> , <i>T. argyrostoma</i> , <i>T. necnivosus</i> ’

cf. also:

MM:	Maringe	<i>p^hupuku</i>	‘ <i>Trochus incrassatus</i> ’
SV:	Anejoñ	<i>na-pek</i>	‘ <i>Turbo marmoratus</i> ’

4.2.5 Cymatiidae, tritons

The tritons are a family of many species, which eat echinoderms and molluscs. The large shell of *Charonia tritonis*, Triton’s trumpet, is widely used as a trumpet for ceremonial purposes or to summon people to meetings. There is a widely-reflected POc reconstruction for triton shells, which continues a PMP etymon.

PMP **tabuRiq* ‘conch shell trumpet’ (dbl. **tabuRi*) (Blust 1989)

POc **tapuRiq* (1) ‘generic for conch shells, esp. triton’s trumpet, *Charonia tritonis* and allied spp.; possibly extended to some *Cassis* (helmet) shells’, (2) ‘trumpet of *Charonia* shell’

Adm:	Mussau	<i>taue</i>	‘triton shell’
NNG:	Kove	<i>taule</i>	‘triton’s trumpet, used for sending messages’
NNG:	Gedaged	<i>taut</i>	‘triton shell’
NNG:	Manam	<i>tauru</i>	‘conch; used as a wind instrument’
NNG:	Mangap	<i>twiiri</i>	‘trumpet shell, Triton’
PT:	Kilivila	<i>tauya</i>	‘triton shell; trumpet of this’
MM:	Nalik	<i>tafuru</i>	‘triton shell’
MM:	Sursuranga	<i>taur</i>	‘triton shell, blown to send messages’
MM:	Patpatar	<i>tahur</i>	‘triton shell’
MM:	Vitu	<i>tavure</i>	‘triton shell’
SES:	Gela	<i>tavuli</i>	‘triton shell; helmet shell, <i>Cassis cornutus</i> ; a trumpet’
SES:	Arosi	<i>ahuri</i>	‘conch shell, triton; trumpet of this, blown only on solemn occasions, e.g. at a death’

		<i>ahuri (poru)</i>	‘k.o. <i>Cassia</i> shell’
SES:	Sa’a	<i>ehuri</i>	‘conch shell, blown as a summons’
TM:	Buma	<i>teveliko</i>	‘triton shell’ (François In press)
NCV:	Mota	<i>tawe</i>	‘conch shell’
NCV:	Mwotlap	<i>na-tō</i>	‘conch shell’
NCV:	Lonwolwol	<i>taviu</i>	‘conch shell (and sound)’
NCV:	Nguna	<i>tavui</i>	‘triton shell’
SV:	Sye	<i>n-tovu</i>	‘triton shell’
SV:	Anejoñ	<i>n-tohou</i>	‘triton shell’
Mic:	Kiribati	<i>tau</i>	‘triton conch’
Mic:	Woleaian	<i>tawii</i>	‘conch shell; trumpet’
Fij:	Bauan	<i>davui</i>	‘Triton’s trumpet; used as a trumpet, chiefly on canoes’
Fij:	Wayan	<i>tavui</i>	‘Triton’s trumpet and allied spp.; trumpet of this’

4.2.6 Neritidae, nerites, and allied families of Neritacea

Typical nerites have globular shells with flattened base. They are vegetarians, living under rocks or in crevices close to the high tide mark. The nerite family contains marine, freshwater and terrestrial species. The wide range and abundance of nerites, and their importance as food, may explain why the generic for this family has come to be used as a generic for a wider range of gastropods in a number of Oceanic languages, including Takia, Roviana, Bauan, Wayan and Samoan.

PMP **sisi[q]* ‘edible snail’ (doublets **sisuq*, **susuq*) (Blust 1980a)

POc **sisiq* (1) ‘various small, snail-like gastropods of nerite family’, (2) ‘probably generic for a wider class of edible gastropods’

NNG:	Takia	<i>sise(i)</i>	‘generic term for all varieties of sea shells’
PT:	Molima	<i>sisi(ʔalo)</i>	‘a brown bivalve, small and edible, found in tidal flats’
MM:	Nakanai	<i>e-sisi</i>	‘k.o. shellfish’
MM:	Teop	<i>hihi</i>	‘ <i>Nerita albicilla</i> ’
MM:	Roviana	<i>sise</i>	‘general name for a number of small shells’
MM:	Marovo	<i>sise</i>	‘small marine gastropod’
		<i>sise (kavo)</i>	‘freshwater gastropod’
SES:	To’aba’ita	<i>sisi-</i>	‘first element in several compounds for kinds of shellfish’
SES:	’Are’are	<i>sisi</i>	‘a big sea shell’
		<i>sisi-</i>	‘first element in compounds for kinds of gastropods’
SES:	Arosi	<i>sisi(apiro)</i>	‘limpet’
SES:	Lau	<i>sisi(afufu)</i>	‘mollusc sp.’
SES:	Gela	<i>hihi(vuhi)</i>	‘freshwater snail sp., <i>Neritina brevispina</i> ’
NCV:	Mwotlap	<i>ne-ses</i>	‘ <i>Nerita plicata</i> ; generic for molluscs’
NCV:	NE Ambae	<i>hihe</i>	‘ <i>Nerita</i> sp.’
NCV:	SE Ambrym	<i>ses</i>	‘shellfish of family Neritidae’
NCV:	Tamambo	<i>sise</i>	‘shellfish sp.’

NCV:	Nguna	<i>sis</i>	‘snail including nerites’
NCV:	Raga	<i>hiha</i>	‘seasnail, winkle’
NCV:	S Efate	<i>ses</i>	‘nerite’
NCal:	Cèmuhi	<i>ti</i>	‘generic term for gastropods’
NCal:	Fwâi	<i>t^{hi}ik</i>	‘trochus, but used generically for gastropods’
NCal:	Nemi	<i>t^{hi}ik</i>	‘trochus, but used generically for gastropods’
Fij:	Rotuman	<i>sisi</i>	‘edible shell-fish, the periwinkle’
Fij:	Bauan	<i>siöi</i>	(1) ‘ <i>Trochus</i> spp.’, (2) ‘first element in various compounds naming kinds of gastropods and a few bivalves’
Fij:	Wayan	<i>öiöi</i>	‘generic for gastropods’
PPn * <i>sisi</i> ‘a univalve mollusc’ (POLLEX)			
Pn:	Niuatoputapu	<i>hihi</i>	‘ <i>Nerita</i> spp.’
Pn:	Niuean	<i>hihi-</i>	‘first element in compound names for some gastropods’
Pn:	Samoa	<i>sisi</i>	‘name given to small snails in general’ (Milner); ‘freshwater molluscs’ (Pratt)
Pn:	E Futunan	<i>sisi</i>	‘small shellfish spp., Neritidae and Naeticidae’
Pn:	Tikopia	<i>sisi</i>	‘a range of marine and land snails incl. <i>Melampus</i> and <i>Nerita</i> spp.’
Pn:	Rennellese	<i>sisi</i>	‘edible <i>Nerita</i> shells’
cf. also:			
NNG:	Yabem	<i>usu</i>	‘sea snails (general term)’
PT:	Motu:	<i>dudu</i>	‘name of a shellfish’ (<i>u</i> for † <i>i</i>)

Some WOc and NCV languages reflect **siseq* or **sisaq* rather than **sisiq*. These departures can be explained in terms of dissimilatory change in which the final, unstressed vowel is lowered. Dissimilation of the final vowel, **sisiq* > *sisu* > *susu*, also explains Motu *dudu* for expected **didi*.

4.2.7 Cypraeidae (cowries) and Ovulidae (egg and spindle cowries)

Many species of cowries are present. The white or egg cowrie (*Ovula ovum*) is used in some societies as a decoration associated with chiefs and chiefly property. In Fiji, for example, these shells are hung from the ridge-pole of a chief’s house and in the western Solomons they are used as prow ornaments on war canoes. Oceanic languages generally classify cowries and ovulids together under a single generic with subtaxa distinguished by binomials. There is a well-attested POc reconstruction which continues a PMP etymon.

PMP **buliq* ‘cowrie shell’ (Blust 1980a)

POc **buli(q)* ‘generic for cowries’

NNG:	Takia	<i>bul</i>	‘k.o. shellfish: <i>Ovula ovum</i> , white egg cowrie’
PT:	Kilivila	<i>bune-buna</i>	‘cowrie’
PT:	Molima	<i>buli</i>	‘cat’s eye (operculum of shell)’
MM:	Tabar	<i>buri-buri</i>	‘big cowrie shell’
MM:	Maringe	<i>buli</i>	‘cowrie shell’

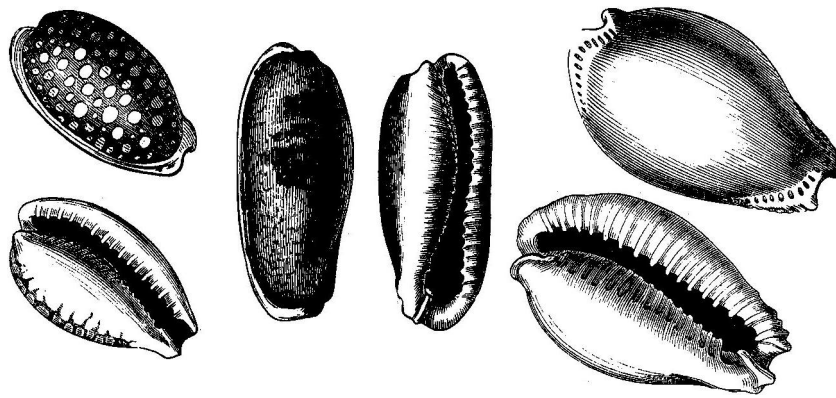


Figure 4.5 Cowries

SES:	Gela	<i>buli</i>	‘generic for cowries’
SES:	To’aba’ita	<i>buli</i>	‘egg cowrie, <i>Ovula ovum</i> ’
SES:	Lau	<i>buli</i>	‘white cowrie, <i>Ovula ovum</i> ’
SES:	Sa’a	<i>puli</i>	‘cowrie shell, used as sinkers for nets’
NCV:	Mwotlap	<i>(nɔ-wɔ)pʷɔl</i>	‘cowrie shell, not edible; <i>Cypraeidae</i> spp.’
NCV:	Nguna	<i>pule</i>	‘cowries’
Mic:	Ponapean	<i>pʷili</i>	‘cowrie shell’
Mic:	Puluwatese	<i>pʷiliy</i>	‘cowry shell; to scrape, as breadfruit’
Fij:	Bauan	<i>buli</i>	‘cowrie shell’
Fij:	Wayan	<i>buli-buli</i>	‘cowrie shell: generic term for <i>Cypraeidae</i> and <i>Ovulidae</i> ’
PPn * <i>pule</i> ‘cowrie’			
Pn:	Samoan	<i>pule</i>	‘cowrie’
Pn:	Niuean	<i>pule</i>	‘cowrie, <i>Cypraea</i> sp.’ (<i>pule tea</i> ‘white cowry, <i>Ovula ovum</i> ’)

4.2.8 Trochidae, top shells

The Trochidae are a family of shallow water dwellers, represented by many species, with conical shells and flat or convex circular base. Some are a valued food resource. Oceanic peoples traditionally made ornaments, such as arm and wrist bracelets, from trochus shell. Oceanic languages usually have a generic term for the family and several binomials naming subtaxa. There is a good chance that the term *lalai*, which entered Tok Pisin from Tolai, has spread from Tok Pisin into many vernacular languages of Papua New Guinea and the Solomons.

PMP **lalak* ‘trochus shell’ (Blust 2002)

POc **lala(k)* (1) ‘*Trochus* spp., including *T. niloticus* and possibly *T. stellatus*’, (2) ‘rings or armlets made of this’

NNG:	Wogeo	<i>lala</i>	‘pearl shell’
MM:	Tolai	<i>lalai</i>	‘ <i>Trochus</i> spp., armlet made from trochus shells’

MM:	Maringe	<i>glala</i>	‘ <i>Trochus niloticus</i> ’
SES:	Gela	<i>lala</i>	‘ <i>Trochus niloticus</i> ’
SES:	Longgu	<i>lala</i>	‘ <i>Trochus niloticus</i> ’
NCV:	Mota	<i>lala</i>	‘top shell; bracelet made of this’
NCV:	Raga	<i>lala</i>	‘ <i>Trochus stellatus</i> ; shell armlet, ring’
NCV:	Tamambo	<i>lala</i>	‘trochus’
NCV:	Uripiv	<i>na-lel</i>	‘trochus shell’

cf. the following, all possibly borrowed from Tok Pisin *lalai*:

Adm:	Mussau	<i>lailai</i>	‘pearlshell’
NNG:	Kove	<i>lalai</i>	‘pearlshell’
MM:	Bali	<i>lailai</i>	‘pearlshell’

4.2.9 Conidae, cone shells

The Conidae are all conical in shape, usually with long narrow aperture and smooth outer lip. Species vary greatly in length, ranging from 6 mm to 230 mm. The Conidae are carnivores and inflict a venom with a radular dart on the proboscis. The larger shells are much used for making bracelets and rings. There is a term attributable to PEOc whose SES reflexes generally refer both to the shell itself and to bracelets and other ornaments made of cone or trochus shell.

PEOc **lako* (1) ‘cone or trochus shell’, (2) ‘various ornaments made from this’

SES:	Gela	<i>lago</i>	‘cone shells made into ornaments’
SES:	Arosi	<i>raʔo</i>	‘trochus shell; various ornaments made from this; canoe decorated with inlaid shell pieces’
SES:	‘Are’are	<i>raʔo</i>	‘cone shell used as ornament on belt or arm; tied on canoes as protection’
SES:	Lau	<i>lao</i>	‘generic for <i>Conus</i> spp.; ornaments of <i>Conus</i> ; canoe decorated with <i>Conus</i> ’
SES:	Sa’a	<i>laʔo</i>	‘cone shell, trochus; forehead ornament of this or tridacna; armlets; shell inlaid on sides of canoes’
Mic:	Puluwatese	<i>la- lælælæ</i>	‘possessive classifier for bracelets’ ‘use s.t. as a bracelet’
Mic:	Woleiaian	<i>raxa</i>	‘bracelet, wrist ornament’

Proto SE Solomonic **kome* evidently referred to a particular kind of armlet, made from **lako* shell. A partially or fully reduplicated form, **ko-kome* or **komekome*, may have been a general name for cone shells in Proto SE Solomonic. However, given that **kome* referred to a valuable trade good, this term may well have spread by borrowing among languages of the central and eastern Solomons.

Proto SE Solomonic **kome* ‘armlets made from cone or trochus shell’, **ko-kome* or **kome-kome* ‘? generic for cone shells’

MM:	Maringe	<i>kome-kome</i>	‘Conidae family (generic)’
		<i>kʰome</i>	‘cone shell, <i>Conus leopardus</i> , used to make armlets’
SES:	Arosi	<i>kome</i>	‘white shell armlet of <i>raʔo</i> trochus’

SES:	Lau	<i>kome</i>	‘ <i>Conus</i> ’
SES:	Sa’a	<i>ko-kome</i>	‘round white armlet of trochus (<i>laʔo</i>)’
SES:	To’aba’ita	<i>kome</i>	‘armlet, shell of <i>Conus</i> sp.’
SES:	Kwaio	<i>kome</i>	‘cone shell arm ring’
		<i>kō-kome</i>	‘cone shells (generic)’

4.2.10 Muricidae, murexes

Murexes have large shells, sculptured with knobs and ridges, spines and spinal cords. They are carnivores which live in the subtidal zone especially on sandy mudflats. Numerous species occur in the tropical Pacific.

POc **buRua* ‘*Murex* sp.’ (Geraghty 1990)

PT:	Bwaidoga	(<i>hewahewa</i>) <i>bulu</i>	‘ <i>M. ramosus</i> ’
MM:	Tolai	<i>burua, bura-burua</i>	‘ <i>M. palma rosa</i> ’
Fij:	Wayan	<i>bua</i>	‘ <i>Murex</i> spp.’

cf. also:

NNG:	Kove	<i>vuru</i>	‘cone shells and ornaments made from these’
MM:	Nakanai	<i>e-buru</i>	‘cone-shaped shellfish’

4.2.11 Gastropod families lacking POc names

For many groups of gastropods present in the tropical Pacific region no reconstructions have been made to POc level, even though names for these groups are present in contemporary languages. For example, POc names are missing for limpets (Patellidae), key-hole limpets (Fissurellidae), ceriths (Cerithidae), cones (Conidae), dog-whelks (Nassaridae), mud-whelks (Potamididae), helmet shells (Cassidae), tun shells (Tonnidae), miters (Mitridae), augers (Terebridae), turrids (Turridae) and drupes (Thaidinae).

4.2.12 Generic terms for gastropods

For a small minority of Oceanic languages the sources give a term that applies to gastropods in general or to a wide range of gastropods. The fact that reflexes of POc **sisiq* have this semantic range in a North New Guinea language (Takia *sisei*), and in the Fijian languages (Wayan *ḍiḍi*, Bauan *siḍi*) might suggest that **sisiq* also had a similar range in POc. However, comparison of the larger sample of cognates listed in §4.2.8 suggests that it is at least as likely that POc **sisiq* was a more restricted generic, referring to various small gastropod families and that more than once it independently became a term for edible gastropods in general. See ch. 8 for further discussion. Marovo (Meso-Melanesian) has a generic, *chuko*, that embraces most small to medium-sized gastropods but excludes nerites and turbans (Hviding 2005:67).

4.3 class Bivalvia: clams, cockles, oysters, etc.

There are ten pretty secure POc reconstructions for kinds of bivalves: **japi*, **kaRi*, **kasi*, **kuku*, **kima*, **sapulu(q)*, **tiRom*, **tu(qu)asi*, **tu(q)e-tu(q)e* and **(w,y)aro*.

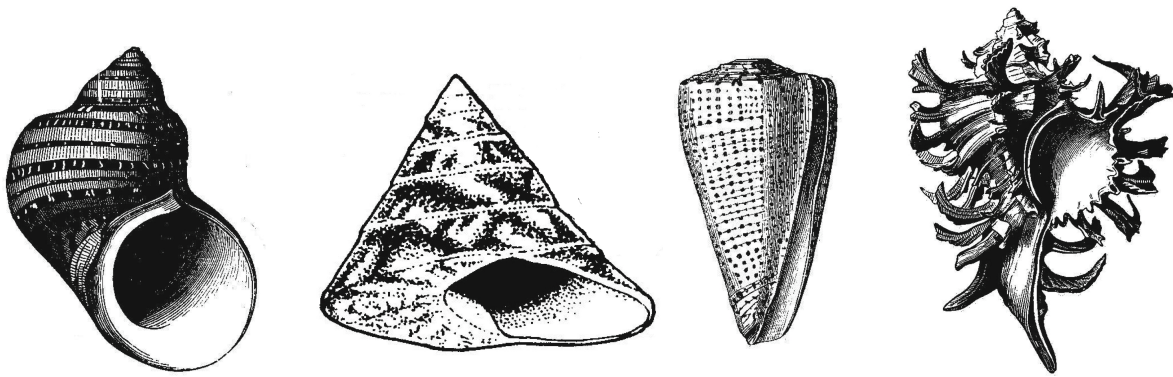


Figure 4.6 Left to right Univalve shells: turban, trochus, cone, murex

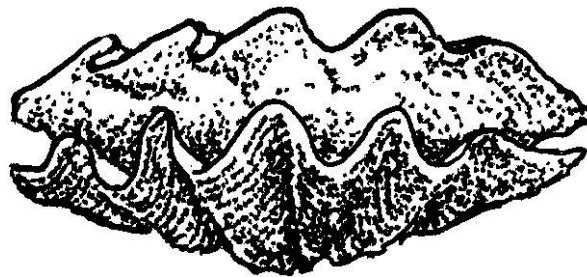


Figure 4.7 *Tridacna gigas*, giant clam

4.3.1 Tridacninae, giant clams

Giant clams are a small but economically important group that includes the largest externally shelled molluscs. The largest species (*Tridacna gigas*) grows up to a metre long. Traditionally regarded as a separate family, this group has recently been reclassified as a subfamily (Tridacninae) of Cardiidae. Giant clams are prized food, consumed at ceremonial feasts. In some societies edge-ground adze blades and shell rings were made from the heavy shells. Typically Oceanic languages have a generic referring to all *Tridacna*, with several binomials distinguishing subtaxa. Thus Arosi *ʔima* is the generic and there are eight binomials (including one pair of synonyms) denoting subtaxa. Wayan has *vāsua* as the generic and has three subtaxa: (*vasua*) *cavucavu*, *T. gigas*, the largest kind, which is easily removed, and is symbolic of women because they marry away from home; *kativatu*, *T. maxima*, is hard to remove and is symbolic of men, who stay with their father's clan; and *vosavosa*, the fluted clam, *T. squamosa*.

There is a well-attested POc generic for giant clams, **kima*, with a PMP antecedent.

PMP **kima* 'giant clam, *Tridacna* spp.' (Blust 2002)

POc **kima* 'giant clam, *Tridacna* spp., include. *T. gigas*'

PT:	Molima	<i>ʔimaʔima</i>	'a shell which is used as a scraper'
PT:	Wedau	<i>kimei</i>	'clam shell'
PT:	Tawala	<i>kima</i>	'clam shell'
MM:	Tabar	<i>kima</i>	'clam'
SES:	Gela	<i>gima</i>	' <i>Tridacna gigas</i> '

SES:	Sa'a	<i>ʔime</i>	'giant clam variety'
SES:	To'aba'ita	<i>ʔima</i>	'generic for giant clams'
SES:	Longgu	<i>ʔima</i>	'large clam'
NCV:	Mota	<i>gima</i>	'giant clam variety'
Mic:	Kiribati	<i>kima</i>	'tridacna'

Reflexes of **kima* are absent from Central Pacific, where it was evidently replaced by **(b,v)āsua*. This was the PCP reflex of a PEOc term for a large but unidentified shellfish species. Reflexes show unexplained variation in the initial consonant.

PEOc **(b,v)asua* 'large shellfish, perhaps a bivalve'

SES:	Gela	<i>(pau)pasua</i>	' <i>Murex</i> spp.'
SES:	Arosi	<i>(hau) wasua</i>	'oyster' (initial w- unexpected)
NCV:	Uripiv	<i>na-basow</i>	'scallop, <i>Pallium</i> sp., and <i>Spondylus rubicundus</i> '

PCP **(b,v)āsua* 'giant clam, *Tridacna* spp.'

Fij:	Wayan	<i>vāsua</i>	'generic for <i>Tridacna</i> spp.'
Fij:	Bauan	<i>vāsua</i>	'giant clam, <i>Tridacna</i> spp.'

PPn **(p,f)āsua* '*Tridacna* clam sp.'

Pn:	Samoa	<i>fāsua</i>	' <i>Tridacna</i> sp., giant clam' (-i- irregular)
Pn:	Rennellese	<i>hāsua</i>	'general term for <i>Tridacna</i> spp.'
Pn:	Emae	<i>fāsua</i>	' <i>Tridacna</i> sp., giant clam'
Pn:	Ifira-Mele	<i>vasu-vāsua</i>	'k.o. edible bivalve'

Proto Eastern Polynesian–Northern Outlier **pāsua* '*Tridacna* sp. or spp.'

Pn:	Sikaiana	<i>pāsua</i>	'clam'
Pn:	Tokelauan	<i>pāua</i>	'poisonous shellfish attached under shelving coral'
Pn:	Nukuoro	<i>pāsua</i>	' <i>Tridacna maxima</i> '
Pn:	Tahitian	<i>pāhua</i>	' <i>Tridacna elonga</i> '
Pn:	Rarotongan	<i>paʔua</i>	'clam, oyster'
Pn:	Marquesan	<i>pahua</i>	'oyster sp.'

cf. also:

Pn:	Tongan	<i>vāsua</i>	'clam' (borrowed from Fijian)
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The Gela and Arosi comparisons are problematic but they provide evidence, consistent with some Eastern Polynesian witnesses, that PCP **(b,v)asua* derived from a pre Central Pacific form that referred to a group of bivalves other than the Tridacninae.

4.3.2 *Asaphis* spp. (Psammobidae) and cockles (Cardiidae)

There is a well-supported POC form, **kasi*, which referred to to the action of grating or scraping, to scrapers made from the valves of circular bivalves, such as *Asaphis* (Psammobidae) and cockles (Cardiidae spp.) and to the shellfish themselves, which are good eating. The vernacular term 'cockle' is used loosely in many sources, referring not just to shells of the Cardiidae family but also to other small to medium-sized rounded bivalves with radial or concentric striae, including Psammobidae and Tellinidae.

POc **kasi* (v) ‘to scrape; scraper or grater made from robust circular bivalve shell, such as *Asaphis* and cockles’, (N) ‘shellfish taxon, esp. *Asaphis* spp.’ (cf. vol.1, pp.162, 238–240)

PT:	Tawala	<i>kahi</i>	‘pearl shell’
MM:	Nakanai	<i>kasi</i>	‘mussel or clam; mussel shell used as knife’
Fij:	Rotuman	<i>ʔosi</i>	‘cockle, shell much used for scraping’

PPn **kasi* ‘shellfish, *Asaphis* spp.’ (POLLEX)

Pn:	Tongan	<i>kahi</i>	‘name of a mussel’
Pn:	Niutoputapu	<i>kahi</i>	‘ <i>Asaphis violascens</i> ’
Pn:	Samoan	<i>ʔasi</i>	‘a mussel, <i>Arca</i> sp.’
Pn:	Nukuoro	<i>kasi</i>	‘ <i>Asaphis dichotoma</i> ’
Pn:	Tikopia	<i>kasi</i>	‘bivalve mollusc, <i>Asaphis violascens</i> , and possibly other related bivalves; shell used as cutting or scraping implement’
Pn:	Rarotongan	<i>kaʔi</i>	‘ <i>Asaphis violascens</i> ’
Pn:	Māori	<i>kahi</i>	‘ <i>Amphidesma australe</i> and certain other bivalves’

cf. also:

Mic:	Carolinian	<i>xātil</i>	‘very small clams (thumb sized) used in soups’
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The next term, POc **kaRi*, may have referred to cockles or may have been a more general term for a wider range of small to medium-sized bivalves.

POc **kaRi* ‘bivalve sp. or spp, possibly cockle, used as a scraper’ (Geraghty 1990; cf. vol.1, p.162)

NNG:	Manam	<i>ʔoriʔori</i>	‘pearl shell, traditionally used to scrape coconuts; coconut grater, scraper’
SES:	Gela	<i>gali</i>	‘species of mollusc, <i>Asaphis</i> sp. (eaten)’
SES:	To’aba’ita	<i>ʔali</i>	‘bivalve sp., used as scraper and spoon’
SES:	Sa’a	<i>ali</i>	‘cockle’
NCV:	Mota	<i>yar</i>	(1) ‘cockle’, (2) ‘to scrape’
NCV:	Raga	<i>gari</i>	‘cockle shell; used as a scraper’
Fij:	Bauan	<i>kai</i>	‘generic name of bivalve shellfish’
		<i>kai-koso</i>	‘generic for several bivalves’

PPn **pipi* appears to have applied to various circular bivalves including *Asaphis* sp. or spp. Its reflexes are of interest because in several cases (Kapingamarangi, Pukapukan, Rennellese and Tikopia) they have become a generic for bivalves.

PPn **pipi* ‘probably general name for small or medium-sized circular bivalves, including cockles, *Asaphis* spp.’

Pn:	Tongan	<i>pipi</i>	‘shellfish sp.’
Pn:	Samoan	<i>pipi</i>	(1) ‘kind of cockle, <i>Asaphis</i> sp.’, (2) ‘shell scraper for barkcloth’
Pn:	Tokelauan	<i>pipi</i>	(1) ‘ <i>Asaphis</i> sp.’, (2) ‘scraper of this’
Pn:	Tuvalu	<i>pipi</i>	‘ <i>Asaphis</i> sp., <i>Nerita</i> spp.’
Pn:	Rennellese	<i>pipi</i>	‘circular bivalves’
Pn:	Kapinga	<i>pipi</i>	(1) ‘ <i>Asaphis</i> sp.’, (2) ‘general term for small clams’

Pn:	Tikopia	<i>pipi</i>	‘bivalve of many spp.’
Pn:	Pukapukan	<i>pipi</i>	‘general name for clams’
Pn:	Māori	<i>pipi</i>	‘ <i>Paphies australis</i> , <i>Chione stutchburyi</i> ’

4.3.3 Mytilidae, mussels

Mussels occur in dense colonies on rocky shores, attaching themselves to surfaces by byssus threads. They fall into several subfamilies. *Mytilus* spp. predominate in cold waters but in tropical waters they are replaced by species of the subfamilies Modiolinae and Lithophaginae. Commonly Oceanic languages distinguish two or more mussel taxa by name, e.g. Wayan has a generic term *boro*, with two subtaxa: *boroboro*, probably *Modiolus plumescens*, and *drivi* ‘small mussels with black shell, possibly *Lithophaga* sp.’

Blust (1972:10) relates POc **kuku(r)* ‘? mussel sp.’ to PAn **kuDkuD* ‘rasp, file’, noting reflexes such as Tagalog *kudkod*, Toba Batak *hurhur* ‘grated’, Ngadju Dayak *kukur* ‘rasp, grater’. It is likely that POc **kuku(r)* was polysemous, referring both to food scrapers of various kinds of shells and to mussels, which were used as scrapers.

POc **kuku(r)* ‘mussel sp. or spp., used as food grater or scraper’ (see vol.1, p.161)

Adm:	Lou	<i>kuki</i>	‘shell used to scrape coconut’
NNG:	Takia	<i>kuk</i>	‘shellfish: <i>Anadara</i> sp., cockle shell’
NNG:	Kove	<i>kuku</i>	‘little black horse mussel’
SES:	Gela	<i>yuyu</i>	‘mollusc sp.’
SES:	Arosi	<i>kuku</i>	‘a small bivalve, <i>Arca</i> sp.’
NCV:	Lonwolwol	<i>huhu</i>	‘a sharpened shell, for scraping’
Fij:	Bauan	<i>kuku</i>	‘generic for mussels, incl. <i>Modiola</i> spp.’

PPn **kuku* ‘mussel sp. (Mytilidae)’ (POLLEX)

Pn:	Tongan	<i>kuku</i>	‘pink-fleshed mussel’
Pn:	Niuean	<i>kuku</i>	‘a small black mussel’
Pn:	Samoa	<i>ʔuʔu</i>	‘mussel, <i>Modiola</i> sp.’
Pn:	E Futunan	<i>kuku</i>	‘mussel sp. (Mytilidae)’
Pn:	Rarotongan	<i>kuku</i>	‘mussel sp., <i>Mytilus edulis</i> ’
Pn:	Rennellese	<i>kuku</i>	‘ <i>Tellina discus</i> ’

4.3.4 Ostreidae, rock oysters

The English folk category ‘oyster’ refers to several families of bivalves, including Ostreidae (typical oysters), Isognomonidae (mangrove oysters), Malleidae (hammer oysters), Pteridae (pearl and wing oysters) and Spondylidae (thorny oysters), the latter being more closely related to scallops than to the other ‘oyster’ families. Wayan Fijian has a generic term, *diva*, with a similarly broad range of reference.

POc **tiRom* continues a PAn term for oyster. The range of the POc term probably included both typical oysters (Ostreidae), which attach themselves by cementing one valve to rocks or wood, and tree oysters (Isognominidae), found mainly among mangrove roots or under rocks in the intertidal zone. Only a few species of Isognomonidae occur in the Pacific Islands.

PMP **tiRem* ‘oyster (Ostreidae)’ (Dempwolff 1938, Blust 2002)

POc **tiRom* ‘oyster (Ostreidae, Isognomonidae)’

Adm:	Lenkau	<i>tireŋ</i>	‘k.o. shell’
NNG:	Kove	<i>tiro</i>	‘ <i>Crassostrea commercialis</i> , oyster found on stones and mangroves’
		<i>tiromu</i>	‘oyster (edible)’ (borrowed from Bali?)
NNG:	Mangap	<i>tir</i>	‘freshwater shellfish type’
PT:	Motu	<i>siro</i>	‘oyster’
MM:	Nakanai	<i>tiro</i>	‘mangrove oyster’
SES:	Gela	<i>tilo</i>	‘k.o. bivalve, in mangroves and borer in ships’
SES:	’Are’are	<i>iro</i>	‘k.o. oyster living on roots of mangroves’
SES:	Arosi	<i>iro</i>	‘small gastropod’
SES:	Kwaio	<i>ilo</i>	‘oyster’
NCal:	Pije	<i>diam</i>	‘oyster’
NCal:	Nemi	<i>jiem</i>	‘oyster’
Fij:	Bauan	<i>dio</i>	‘rock oyster’
Fij:	Wayan	<i>tio</i>	‘generic for rock oysters (Ostreidae)’

PPn **tio* ‘oyster sp.’ (POLLEX)

Pn:	Tongan	<i>sio</i>	‘rock oyster’
Pn:	E Futunan	<i>tio</i>	‘rock oyster’
Pn:	Samoa	<i>tio</i>	‘mollusc, <i>Vermetus</i> sp.; iridescent fish lure made from its shell’
Pn:	Tokelauan	<i>tio</i>	‘gastropod, <i>Vermetus</i> sp. (Vermitidae)’

4.3.5 Pteridae, pearl and wing oysters, and Malleidae, hammer oysters

The family Pteridae includes pearl and wing oysters, which live on rocky ocean floors. They have moderate to large shells with one valve more inflated, with pearly interior. The Malleidae, hammer oysters, have ears drawn out into elongate wings. The common hammer oyster, *Malleus malleus*, anchors to the bottom in shallow reef waters.

The gold-lip pearl shell, *Pinctada maxima*, and the black-lip pearl, *P. margaritifera*, were traditionally important as a trade item and source of ornaments, especially the breastplate crescent made from the lip of this shell and worn by men. Although they are widely distributed species Swadling (1994) reports that the environmental conditions for dense concentrations of gold- and black-lip pearl shells occur only in a few parts of Papua New Guinea (Manus Province, Ramoaina Islands, Arawe Islands, Brooker and Moturina in the Calvados chain, eastern Milne Bay Province, and the Torres Strait Islands). Pearl oysters are absent from the more southerly subtropical parts of Polynesia, and in some other parts of Polynesia, including Tonga and Samoa, occur in locations that were not easily accessible to divers. The importance of pearl shell ornaments as trade valuables no doubt led to borrowing of the names for these in some regions. However, the fact that reflexes of **japi*, showing regular sound shifts, are found from New Guinea to Polynesia is strong evidence of the POc antiquity of this term.

POc **japi* (1) ‘bivalve taxon, probably *P. maxima*, gold-lipped pearl shell’, (2) ‘ornament made from this’ (see vol.1, p.104)

NNG:	Manam	<i>javi</i>	‘pearl shell spoon’
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MM:	Roviana	<i>davi</i>	‘pearlshell’
MM:	Marovo	<i>davi</i>	‘goldlip pearl, <i>Pinctada maxima</i> ’
SES:	Bugotu	<i>davi</i>	‘gold-lip pearl shell’
SES:	Gela	<i>davi</i>	‘gold-lip pearl; crescent ornament made from this’
SES:	’Are’are	<i>tahi</i>	‘pearl shell; ornament made of same worn by chiefs’
SES:	Arosi	<i>dahi</i>	‘gold-lipped pearl shell’
SES:	Sa’a	<i>dahi</i>	‘gold-lipped pearl; crescent breast ornament worn by men, cut from this shell’

PCP **jiva* ‘pearl oyster, including *Pinctada* spp.’ (metathesis)

Fij:	Bauan	<i>ōiva</i>	(1) ‘pearl and wing oysters (<i>Pinctada</i> and <i>Avicula</i> spp.), hammer oyster (<i>Malleus</i> sp.)’, (2) ‘breastplate of pearl shell in frame of whale’s tooth ivory’
		<i>ōiva-ōiva</i>	‘small oyster, <i>Pinctada matensis</i> ’
Fij:	Wayan	<i>ōiva</i>	(1) ‘pearl and winged oysters, including blacklip pearl, <i>Pinctada margaritifera</i> , and giant wing oyster, (2) ‘generic for all kinds of oysters’
Pn:	Tongan	<i>sifa</i>	‘pearl shell breastplate’
Pn:	Niuean	<i>tifa</i>	‘mother of pearl shell and ornament’
Pn:	Tikopia	<i>tifa</i>	‘large pearl shell, formerly worn by men of rank as a breast ornament. Types include <i>Pinctada margaritifera</i> , <i>P. maxima</i> , <i>Isognomon isognomum</i> , <i>I. perna</i> and <i>Pinna</i> sp.’
Pn:	Rarotongan	<i>tiʔa</i>	‘pearl shell breastplate’
cf. also:			
PT:	Hula	<i>ravivi</i>	‘clamshell’

The next two sets probably belong to the same etymon. *w/y* crossover occurs in certain other forms. The Gela reflex is compatible with either set because word-initial **w* is lost in Gela.

POc *(*y*)*aro(q)* ‘black-lipped pearl, *Pinctada maxima*’, possibly generic for *Pinctada* spp.

NNG:	Bing	<i>yar-yar</i>	‘blacklip pearl oyster shell, <i>P. maxima</i> ’
NNG:	Gedaged	<i>jaʔ</i>	‘goldlip pearl’
NNG:	Mangap	<i>yar-yar</i>	‘saltwater shellfish, very colourful’
PT:	Motu	<i>laro</i>	‘small pearl shellfish; shell used for cutting and paring’ (<i>l-</i> a sporadic accretion in Motu)
MM:	Roviana	<i>aro(moi)</i>	‘k.o. large oyster’
MM:	Nduke	<i>aro(moi)</i>	‘large oyster found on reef, <i>Pycnodonata hyotis</i> (= <i>Ostrea hyotis</i>)’
SES:	Lengo	<i>aro</i>	‘oyster’

PEOc **waro(q)* ‘probably black-lipped pearl, *Pinctada maxima*, possibly generic for *Pinctada* spp.’

SES:	Gela	<i>aro</i>	‘black-lip pearl, <i>P. margaritifera</i> ’
SES:	Arosi	<i>waro</i>	‘black-lip pearl’ (<i>waro-anakaoea</i> , scallop, <i>Pecten</i> sp.)

SES:	To'aba'ita	<i>k^waro</i>	'pearl oyster, <i>P. margaritifera</i> '
		<i>k^waro(mēmena)</i>	'pearl oyster sp., dark yellow tinge, probably <i>P. maxima</i> , black-lip pearl'
Fij:	Wayan	<i>waro</i>	'pen shell, <i>Pinna</i> sp.'

4.3.6 Pinnidae, pen shells

The Pinnidae or pen shells have large fragile shells. They live buried in soft sand anchored by a silk byssus. The following reconstruction is tentatively associated with the genus *Pinna* because of the Gela and Fijian reflexes. In Cristobal-Malaita languages the reflex refers to black mussels, from which bonito hooks are made.

POc **sapulu(q)* 'bivalve mollusc, possibly *Pinna* sp.'

NNG:	Kove	<i>ravulu</i>	'k.o. razor shell'
SES:	Gela	<i>havulu</i>	'k.o. mollusc, <i>Pinna</i> sp.'
SES:	Bugotu	<i>havulu</i>	'scallop' (Ivens: gloss dubious)
SES:	'Are'are	<i>tahuri</i>	'a black mussel'
SES:	Arosi	<i>tahuru</i>	'black mussel sp., used to make bonito hooks'
SES:	Sa'a	<i>tehulu</i>	'black mussel, used to make bonito hooks'
SES:	To'aba'ita	<i>fulu</i>	'shellfish with black shell'
Fij:	Bauan	<i>savulu</i>	'a shellfish, <i>Pinna squamosa</i> '

4.3.7 Lucinidae and allied families

Lucinoidea (Lucinidae and three other families) are often the dominant bivalves in shallow sea grass bed habitats, esp. species of *Codakia*, *Ctena*, *Lucina*, *Lucinisca*, *Loriges* and *Anondontia*, and are an important food source. The Lucinidae have certain unusual anatomical features including a foot, used for burrowing, that can be extended 4 to 6 times the length of the animal. There is no secure POc reconstruction for this family but the following is a candidate.

POc **tu(q)e*, **tu(q)e-tu(q)e* 'k.o. bivalve, possibly Lucinidae and allied families'

NNG:	Kove	<i>tue</i>	' <i>Geloina coaxans</i> , a cockle-like clam of mangrove forest (Corbiculidae)'
		<i>tue-tue</i>	' <i>Codakia tigerina</i> (Lucinidae), <i>Quidnipagus palatum</i> (Tellinidae)'
SES:	Gela	<i>tue</i>	' <i>Batissa</i> sp., possibly <i>B. unioniformis</i> , a commonly harvested small bivalve used as a scraper'
		<i>tue-lovo</i>	' <i>Pecten</i> sp.'
		<i>tue-koraga</i>	'freshwater bivalve'
		<i>tue-kunukunu</i>	'very long <i>Batissa</i> sp.'
		<i>tue-tue</i>	(1) ' <i>Tellina</i> spp.'; (1) 'young <i>tue</i> '
SES:	Ghari	<i>tue</i>	'black freshwater oyster'
		<i>tue-tue</i>	'small white edible shellfish'
SES:	Lengo	<i>tue</i>	'mangrove shell'

		<i>tu-tue</i>	‘sea shell’
SES:	Tolo	<i>tue-tue</i>	‘small freshwater shellfish’
Pn:	Tongan	<i>tuʔe</i>	‘k.o. shellfish with long sharp projections’
Pn:	Māori	<i>tua-tua</i>	‘bivalve, <i>Amphidesma subtriangulata</i> ’ (syn. of <i>kahi-tua</i> , <i>kai-tua</i>)

4.3.8 Reconstructions for bivalves of uncertain family

Some etyma have reflexes that are so semantically diverse or so vaguely glossed in the sources that the reconstructed name cannot be associated with a particular family. For POc **sisira* ‘a barnacle or k.o. small mollusc’ see §3.6. The following reconstruction is very tentative, because the putative cognates are few and because the semantic agreement is weak.

POc **tape* ‘k.o. bivalve’

NNG:	Bilibil	<i>tave</i>	‘giant clam, <i>Tridicna gigas</i> ’
MM:	Teop	<i>dave</i>	‘ <i>Polinices tumidua</i> (in white sand)’
Fij:	Wayan	<i>tavē</i>	(1) ‘tellins, sanguins’, (2) ‘generic for a large class of bivalves, excluding oysters and giant clams’

The following term may have applied to a kind of pearl shell, with a shift of referent in Bugotu and Maringe arising from the use of pieces of nautilus shell for inlaying in woodwork.

PWOc **bio* ‘k.o. mollusc or pearl shell’

NNG:	Yabem	<i>bi</i>	‘pearl shell’
NNG:	Gitua	<i>bio-bio</i>	‘pearl shell’
NNG:	Tami	<i>biu</i>	‘pearl shell’
MM:	Nakanai	<i>beo</i>	‘pearl shell’
MM:	Tabar	<i>bio</i>	‘k.o. shellfish, Strombidae’
MM:	Bola	<i>bio</i>	‘pearl shell’
MM:	Maringe	<i>bio</i>	‘nautilus shell, used for inlaying in woodwork’
SES:	Bugotu	<i>bio</i>	‘nautilus’ (possibly borrowed from Maringe)

The following cognate set appears to be restricted to Meso-Melanesian.

PMM **game* ‘k.o. mollusc’

MM:	Vitu	<i>game</i>	‘k.o. shellfish: <i>Trochus niloticus</i> ’
MM:	Tabar	<i>gam</i>	‘a shellfish’ (possibly from Tok Pisin <i>gam</i> ‘baler shell, large cowry shells’)
MM:	Tangga	<i>gem</i>	‘a bivalve, possibly a small <i>Toigans</i> ’

cf. also:

Adm:	Mussau	<i>kame-kame</i>	‘bait’
NNG:	Manam	<i>gam</i>	‘squid’

The following term may have referred both to a bivalve shellfish and to spoons or graters made from its shell. Only a single WOc reflex has been noted. The Niuatoputapu reflex points to PPn **tuquahi*, with glottal stop, whereas the Tongan reflex points to **tuahi*. Those Polynesian forms that refer only to coconut grater may have spread by borrowing.

POc **tu(qu)asi* ‘bivalve taxon, probably ark or cockle shell; possibly also grater or spoon made from this’

NNG: Mangap *tuai* ‘shellfish type, shell used for scraping root vegetables’

PCP **tu(qu)aōi* ‘bivalve taxon, probably ark or cockle shell; possibly also grater or spoon made from this’

Fij: Bauan *tuasa* ‘a bivalve, probably *Arca* sp.’ (final *-a* irregular)

Fij: Wayan *tuaōi* ‘ark shell, *Anadara* sp. (Arcidae)’

Pn: Tongan *tuahi* ‘k.o. shellfish’

Pn: Niuatoputapu *tuʔuasi* ‘a cockle, *Laevicardium biradiata* (Cardiidae)’

Pn: Samoan *tuai* ‘coconut grater’

Pn: Rennellese *tuai* ‘spoon or grater, formerly made of shell’ (for †*tuʔuai*)

Pn: Rarotongan *tuai* ‘coconut grater’

4.3.9 Bivalve families lacking definite POc reconstructions

There are several prominent families of bivalves for which no definite POc names can be reconstructed. These include scallops (Pectinidae), thorny oysters (Spondylidae), jewelboxes (Chamidae), tellins (Tellinidae), sanguins (Garidae), wedge shells (Donacidae), venus shells (Veneridae), and olives (Olividae).

4.3.10 Generic term for bivalves

Some contemporary languages have a generic covering all or most bivalves. This is often a polysemous term, which also refers to an important specific taxon. For example, the Bauan generic *kai* is also the term for cockles, Wayan *tavē* is also the term for tellins and sanguins. In several Polynesian languages reflexes of PPn **pipi*, probably originally referring chiefly to cockles, has become a generic for a wide range of bivalves (§4.3.2).

4.4 Polyplacophora: chitons

Chitons are flattened, slug-like molluscs, most species covered with eight shingle-like plates. They feed on algae. Chitons are usually represented in Oceanic languages by a uninomial generic (e.g. Gedaged *dabag*) and some languages also have several binomials naming specific kinds. There is a well-supported PEOc reconstruction but there are no certain cognates in WOc.

PEOc **tadruku* ‘generic for chitons’

SES: Gela *tadugu* ‘generic for chitons’ (Foale)

Fij: Bauan *tadruku* ‘chiton’

Fij: Wayan *tadruku* ‘chiton’

cf. also:

MM: Marovo *tatadu* ‘generic for chitons’

In PPn **mama* replaced **tadruku* as the generic for chitons. PPn **mama* is probably cognate with Southeast Solomonian **mama*, referring to a kind of anemone or jellyfish (see §6.3).

PPn **mama* ‘chiton’

Pn:	Tongan	<i>mama</i>	‘seaslug’
Pn:	Niuean	<i>mama</i>	‘various slug-like molluscs on reef, probably chiton family’
Pn:	Tikopia	<i>mama</i>	‘chiton’
Pn:	Marquesan	<i>mama</i>	‘ <i>Chiton magnificus</i> ’

4.5 A term for shellfish in general

Did POC speakers have a name for shellfish (shelled molluscs) in general? As noted in section 1, POC had a broad collective term, **pinanoda*, denoting ‘marine invertebrates, sea animals other than fish gathered on the reef’. In a few languages the reflex has become a general term for bivalves and gastropods, sometimes also including sea urchins, e.g. Samoan *fīnōta* ‘generic for shelled molluscs and other invertebrates’, Tokelauan *fīnōta* ‘bivalves, gastropods and sea urchins’.

A term specifically denoting all and only shellfish is present in some Oceanic languages. For example, Foale (1998) reports that Gela (SES) *vaŋuda* is normally used as generic for molluscs but can be extended to include crustaceans and echinoderms. Lau (SES) has a non-cognate form with similar function: *karōjo* (1) ‘shelled mollusc, marine or land’, (2) ‘any invertebrate collected on reef at low tide: shellfish, crabs, squids’, as does Niuean *fua* ‘shellfish and echinoderms’. Motu (PT) has *bisisi* ‘general name for all shellfish’ and Takia (NNG) has *sisei* ‘generic for all varieties of shells’. Akimichi and Sakiyama (1991) report that Penchal (Adm) *m^wel* has two senses: (1) ‘shellfish’, (2) ‘shellfish, sea urchins and sea cucumbers’ and that in nearby Lenkau the cognate term *m^we* also has two senses: (1) ‘shellfish’ and (2) ‘shellfish, cephalopods and sea urchins and sea cucumbers’. We can conclude that POC may well have had a general term for shellfish. However, in the absence of a widespread cognate set no reconstruction can be made.

4.6 Cephalopoda: octopus, squid, nautilus

The cephalopods include (1) the octopus and argonaut group, with eight tentacles, (2) the squid and spirula group, with ten, and (3) the chambered nautilus, which inhabits the deep sea and is rarely encountered alive. Groups (1) and (2) are valued food sources.

4.6.1 Octopus

Several species of octopus occur in the Pacific, two common ones being *Octopus cyanea*, the day octopus or common reef octopus, and the smaller *O. oinatus*, the night octopus. Some Oceanic languages name several different taxa by size, shape and habits. There is a widely-reflected generic going back to PAN.

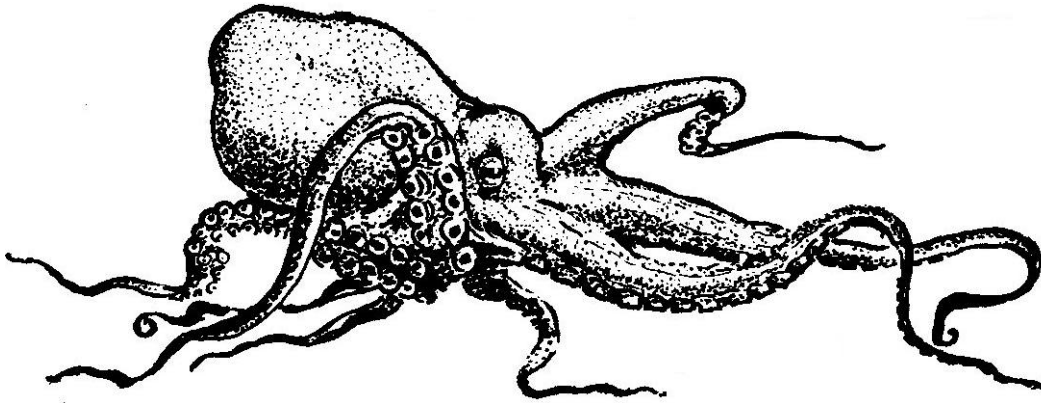


Figure 4.8 Octopus

PAn **kuRita* 'octopus' (Blust 2002)

POc **kuRita* 'generic for octopus'

Adm:	Titan	<i>kwit</i>	
Adm:	Mussau	<i>uita</i>	
NNG:	Gedaged	<i>ulit</i>	
PT:	Kilivila	<i>kuita</i>	
PT:	Motu	<i>urita</i>	
MM:	Tabar	<i>urita</i>	
MM:	Sursurunga	<i>kurit</i>	
MM:	Tolai	<i>urita</i>	
MM:	Teop	<i>orita</i>	
SES:	Tolo	<i>hulita</i>	
SES:	Arosi	<i>ʔuria</i>	'a small octopus, squid'
NCV:	SE Ambrym	<i>uit</i>	'octopus, squid'
NCV:	Raga	<i>guita</i>	'octopus; generic for cephalopods'
NCal:	Jawe	<i>ciia</i>	'octopus'
Mic:	Woleiaian	<i>xiusa</i>	
Fij:	Bauan	<i>kuita</i>	'octopus; generic for cephalopods'

4.6.2 Squid and cuttlefish

Squids have 10 arms and a thin, plastic-like internal shell, which in the cuttlefish (*Sepia* spp.) takes the form of a flat rigid bone. Several squid and cuttlefish species occur in Pacific shallow waters, ranging in size from just a few cm to quite large.

POc had at least two terms for squid/cuttlefish taxa: **nusa* (with doublet **nus*) and **m^wanagi* (with doublet **m^wam^wagi*).

**nusa* and **nus* seem to have referred to small squid and small cuttlefish. Blust (1986) reconstructs PMP **nus* 'squid, cuttlefish', based on forms such as Malay *nus* 'generic for cephalopods' and Roti *nus* 'octopus, squid', with a doublet **kanuqus*. **nusa* is reflected by the following:

POc **nusa* (doublet **nus*) ‘small reef squid (*Loligo* spp.) and smaller cuttlefish (*Sepia* spp.)’

Adm:	Mussau	<i>nusa</i>	‘small squid’
NNG:	Bariai	<i>gusa</i>	‘squid’
NNG:	Gedaged	<i>nui</i>	‘squid’
NNG:	Manam	<i>nuri</i>	‘squid’
PT:	Motu	<i>nuse</i>	‘small octopus’ (-s- irregular)
MM:	Nakanai	<i>luso</i>	‘cuttlefish’
MM:	Bulu	<i>guta</i>	‘squid’
MM:	Maringe	<i>nuho</i>	‘cuttlefish’
SES:	Gela	<i>nuho</i>	‘generic for reef squids, <i>Sepioteuthis</i> spp.’
SES:	To’aba’ita	<i>nuta</i>	‘cuttlefish sp., relatively small’
SES:	Arosi	<i>nuto, nito</i>	‘octopus, squid, smaller than <i>monagi</i> ’
SES:	Lau	<i>nuto</i>	‘squid’
SV:	Anejoñ	<i>niθ</i>	‘generic for squids’
NCal:	Fwâi	<i>nit</i>	‘squid’
Mic:	Puluwatese	<i>ñiit</i>	‘cuttlefish’ (<i>η</i> for <i>*n</i> irregular)

cf. also:

MM:	Tolai	<i>(mara)nua</i>	‘octopus sp.’
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POc **nus* has reflexes in Admiralties, North New Guinea and Central Pacific.

POc **nus* ‘squid’

Adm:	Titan	<i>ñu</i>	‘squid’
NNG:	Mangap	<i>nus</i>	‘smaller squid type’
Fij:	Rotuman	<i>nu</i>	‘squid’
Fij:	Bauan	<i>(kuita) nū</i>	‘squid’
Fij:	Wayan	<i>(sulua) nū</i>	‘squid’ (<i>sulua</i> ‘octopus’)

PPn **ñū* ‘squid’ (POLLEX; *η* for †**n*)

Pn:	Tongan	<i>ñū(feke)</i>	‘squid, cuttlefish’ (<i>feke</i> ‘octopus’)
Pn:	Nukuoro	<i>ñū</i>	‘squid’
Pn:	Māori	<i>ñū</i>	‘squid, <i>Sepia apama</i> ’

**m^wanagi* (dbl. **m^wam^wagi*) possibly referred to larger cuttlefish. This term has reflexes in WOc and in SES.

POc **m^wanagi*, **m^wam^wagi* ‘larger cuttlefish, *Sepia* sp. or spp.’

Adm:	Lenkau	<i>moman</i>	‘cuttlefish’
Adm:	Penchal	<i>m^wam^wak</i>	‘large red squid’
Adm:	Titan	<i>m^wuam^wak</i>	‘cuttlefish’
NNG:	Lamogai-Rauto	<i>wonek</i>	‘squid’
NNG:	Akolet	<i>e-vuñek</i>	‘squid’
PT:	Kilivila	<i>m^wanagia</i>	‘cuttlefish shell’
PT:	Motu	<i>managi</i>	‘large octopus with shell’
MM:	Tolai	<i>managa</i>	‘squid’ (<i>*i > a</i> by assimilation)
MM:	Tolai	<i>munaga</i>	‘cuttlefish’
SES:	Gela	<i>managi</i>	‘ <i>Sepia</i> spp., cuttlefish’

SES:	'Are'are	<i>manaki</i>	'cuttlefish'
SES:	To'aba'ita	<i>wāwaki</i>	'spp. of large cuttlefish'
SES:	Arosi	<i>monagi</i>	'cuttlefish, larger than <i>nuto</i> '
NCV:	Vera'a	<i>m^wanak</i>	'cuttlefish, <i>Sepia</i> sp.'
cf. also:			
NNG:	Kove	<i>mokave</i>	'octopus'
NNG:	Apalik	<i>oyuk</i>	'squid'

4.7 Parts of molluscs

Oceanic languages usually have names for various parts of molluscs including beak, tentacles, suckers of octopus, mantle, foot, proboscis, gonads, innards of shellfish, shell, valve and hinge of bivalves, etc. Only a few part names are reconstructable to the level of POc.

PEOc **buRu* 'octopus ink, sepia' (Geraghty 1990)

SES:	Arosi	<i>buru</i>	'cuttlefish ink'
SES:	Sa'a	<i>bulu</i>	'octopus ink'
Fij:	Bauan	<i>bū(loi)</i>	'octopus ink' (<i>loi</i> 'black')
Fij:	Wayan	<i>bū(lō)</i>	'octopus ink; ink sac of octopus; poisonous fluid ejected by certain fish' (<i>lō</i> 'black')

PMP **gaway* 'octopus tentacles' (Zorc 1994)

POc **kawē* 'tentacle of a cephalopod'

PT:	Motu	<i>gave</i>	'tentacles of octopus'
SES:	Ghari	<i>gae</i>	'tentacles' (loss of <i>*v</i> irregular)
SES:	Sa'a	<i>ka-kave(na)</i>	'tentacle'
SV:	Anejoñ	<i>n-yeve</i>	'tentacles of a cephalopod'
Fij:	Bauan	<i>kawē</i>	'leg of a crab'

PPn **kawē* 'tentacle of a cephalopod' (POLLEX)

Pn:	Tongan	<i>kave</i>	'tentacle of cuttlefish'
Pn:	E Futunan	<i>kave(ʔi)</i>	'tentacle'
Pn:	Samoan	<i>ʔave</i>	'tentacle of an octopus'
Pn:	Hawaiian	<i>ʔawe</i>	'tentacle of squid, etc.'

POc **mata* 'the operculum or trapdoor of certain gastropod spp.' (cf. POc **mata* 'eye, opening, most important part or focal point of a thing')

NNG:	Gedaged	<i>mala(n)</i>	'operculum'
MM:	Tolai	<i>mata</i>	'operculum'
MM:	Poe	<i>(mangasi) mata(na)</i>	'operculum of turban shell'
SES:	Lau	<i>mā</i>	'operculum of a univalve'
NCV:	Port Sandwich	<i>mara(n)</i>	'operculum'
Fij:	Wayan	<i>mata</i>	'operculum'

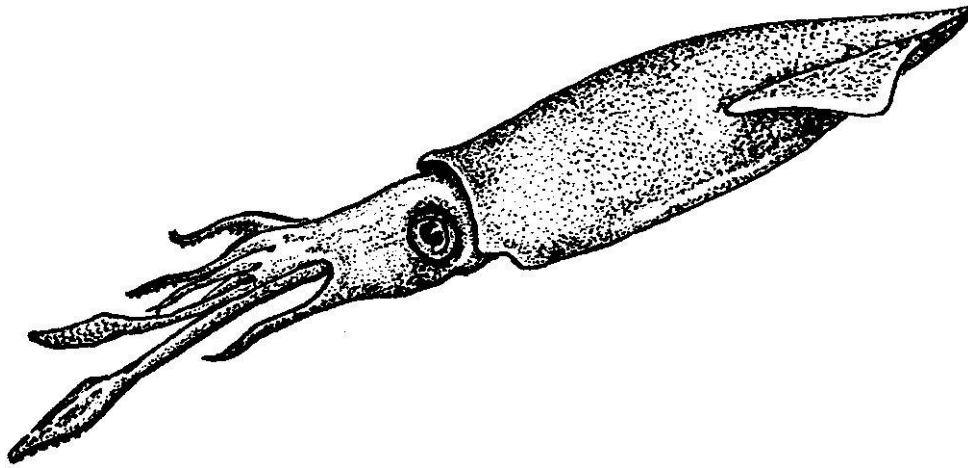


Figure 4.9 Squid

4.8 Artefacts made from shell

As indicated in §4.1, POc speakers made a variety of artefacts from shell. Reconstructed terms include a number which refer both to the shell and animal and to the artefact made from the shell: **japi* ‘crescent breast ornament made from pearl shell, probably worn by high status men’ (§4.3.5), **lala(k)* ‘rings or armlets of trochus shell’ (§4.2.8), **tapuRiq* ‘trumpet, of triton shell’ (§4.2.5), **buli(q)* ‘cowry shell sinkers’ (§4.2.7), **kaRi*, **kasi* and **kuku(r)* ‘cutting and scraping instruments of bivalve shells’ (§4.3.2, §4.3.5). A few terms for artefacts sometimes or usually made from shell can be reconstructed, e.g. **kiRam* ‘adze or axe (generic but applied to edge-ground axes made of tridacna shell)’, **kawil* ‘fish-hook’, and **sabi-sabi* ‘shell disk used as ear-ring (in Massim made of *Chama pacifica*)’ (see vol.1, p.104).

5 Echinodermata: sea urchins, sea cucumbers, starfish, etc.

The echinoderms include sea urchins (sea-eggs), sea cucumbers, starfish, brittle stars, feather stars and sand dollars. All possess tube feet and have a body pattern structured in fives. However, the various groups are very diverse in form.

5.1 Echinoidea: sea urchins

Sea urchins are represented in Oceania by numerous genera and species. These include long-spined echinoderms (esp. *Echinothrix* and *Diadema* spp.), short-spined rock-boring urchins (*Echinometra* spp.) and slate pencil urchins, *Heterocentrus mammilatus*. Some sea urchins are eaten. It seems that few Oceanic languages have a folk generic covering all sea urchins. In Wayan echinoderms are recognised as a covert taxon, sometimes referred to by a phrase meaning ‘spiky animals of the reef’.

5.1.1 *Echinometra* spp., rock-boring urchins

There is a POc reconstruction for short-spined rock-boring urchins, *Echinometra* spp., and possibly also *Tripneustes* spp.

POc **saRawaki* ‘k.o. sea urchin, probably *Echinometra* sp. or spp.’

NNG:	Takia	<i>sarwag</i>	‘sea urchin’
NNG:	Mangap	<i>sarwok</i>	‘sea urchin type’
SES:	Arosi	<i>tawaʔi</i>	‘k.o. echinus’
Fij:	Bauan	<i>ḍāwaki</i>	‘k.o. sea urchin with short spikes’
Fij:	Wayan	<i>ḍāwaki</i>	‘k.o. sea urchin with brittle shell and with short spines, possibly <i>Tripneustes</i> sp.’

PPn **sāwaki* ‘sea urchin with short spines’ (POLLEX)

Pn:	Samoa	<i>sāvaʔi</i>	‘k.o. sea urchin’
Pn:	Rennellese	<i>sābaki</i>	‘sea urchin, <i>Echinometra</i> sp.’
Pn:	Hawaiian	<i>hawaʔe</i>	‘ <i>Tripneustes gratilla</i> , round black short-spined urchin’

cf. also:

PT:	Molima	<i>salawaʔeʔe</i>	‘a purple crab’
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5.1.2 Long-spined sea urchins

The following POc term probably referred to certain long-spined urchins, including *Diadema* spp., and possibly *Astropyga* and *Echinothrix* spp.

POc **sala(n,ŋ)* ‘k.o. sea urchin with long black spines, probably *Diadema* sp. or spp.’

Adm:	Mussau	<i>raraŋ(a)</i>	‘sea urchin’
NNG:	Manam	<i>sala</i>	‘ <i>Diadema setosum</i> , black long spined sea urchin’
NNG:	Kove	<i>rarala</i>	‘sea urchin with long black spines’
PT:	Motu	<i>dala</i>	‘sea urchin’
PT:	Kilivila	<i>sanana</i>	‘sea urchin’
MM:	Halia	<i>salana</i>	‘spiny sea shell’
SES:	Gela	<i>hala</i>	‘an echinus, sea egg’
NCV:	Paamese	<i>sal (eimas)</i>	‘ <i>Diadema</i> sp., sea urchin with long black spines’

cf. also:

NNG:	Mangap	<i>sailen</i>	‘sea urchin’
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A second term, **gina*, is attributable to PEOc, having reflexes in S.E. Solomonian, North-Central Vanuatu and Central Pacific.

PEOc **gina* ‘k.o. sea urchin with long spines’

SES:	Ghari	<i>gine</i>	‘k.o. sea urchin with sharp spines’
NCV:	Raga	<i>gine(hi)</i>	‘sea urchin sp.’
NCV:	Namakir	<i>gin</i>	‘sea urchin sp.’
NCV:	Nguna	<i>gida</i>	‘sea urchin sp.’ (-d- for †*-n- irregular)
Fij:	Bauan	<i>gina</i>	‘k.o. sea urchin, <i>Echinus</i> sp.’
Fij:	Wayan	<i>gina</i>	‘k.o. sea urchin with long yellow spines, probably <i>Echinometrix</i> spp’

PPn **kina* ‘sea urchin’ (POLLEX)

Pn:	Niuean	<i>kina</i>	‘sea urchin’
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Pn:	Samoan	<i>ʔina</i>	‘k.o. sea urchin’
Pn:	Māori	<i>kina</i>	‘k.o. sea urchin with long sharp spines, <i>Evechinus chloroticus</i> ’
Pn:	Hawaiian	<i>ina</i>	‘small rock-boring urchins, <i>Echinometra</i> spp.’

The term **wana*, for a long-spined urchin, is tentatively attributable to PCP.

PCP **wana* ‘sea urchin, probably *Diadema* sp. and/or *Echinothrix* spp.’

Fij:	Rotuman	<i>vənə</i>	‘k.o. sea urchin’ (possibly a Polynesian loan)
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PPn **wana* ‘sea urchin sp.’ (POLLEX)

Pn:	Niuean	<i>vana</i>	‘sea urchin, <i>Echinothrix</i> sp.’
Pn:	E Futunan	<i>vana</i>	‘sea urchin with long black spines’
Pn:	Tikopia	<i>vana</i>	‘ <i>Diadema</i> sp., needle-spined sea urchin’
Pn:	Samoan	<i>vana</i>	‘edible sea urchins with long spikes, <i>Diadema</i> sp.’
Pn:	Tokelauan	<i>vana</i>	‘ <i>Diadema</i> sp., black sea urchin with long brittle poisonous spikes’
Pn:	Hawaiian	<i>wana</i>	‘ <i>Echinothrix</i> spp., long-spined urchins’

cf. also:

SV:	Anejoñ	<i>na-hen</i>	‘k.o. sea urchin with small spikes’
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5.2 Holothuroidea: sea cucumbers (bêche de mer, trepang, holothurians)

5.2.1 Terms for specific taxa

Firm-bodied sea cucumbers are relatively short and fat, with tube feet on the ventral surface. The thin-bodied, worm-like sea cucumbers lack tube feet. Some sea cucumbers are eaten by Oceanic communities. Tongan distinguishes some 18 sea cucumber taxa (Churchward 1959) and Wayan about 19 (Pawley and Sayaba 2003).

Blust (2002) reconstructs PWMP **balat* ‘sea cucumber’ but no Oceanic cognates have been noted. Only one POc term for a sea cucumber taxon has been reconstructed, **(b,p)ula*.

POc **(p,b)ula* ‘k.o. sea cucumber’

MM:	Tabar	<i>pura</i>	‘sea cucumber’
MM:	Vitu	<i>bula</i>	‘sea cucumber’
MM:	Nehan	<i>pul</i>	‘sea cucumber’
MM:	Tangga	<i>pul</i>	‘first element in compound terms for sea cucumbers’
NCV:	Mwotlap	<i>n̄v̄v̄lv̄lv̄</i>	‘k.o. bêche-de-mer’
NCV:	NE Ambae	<i>burie</i>	‘k.o. bêche-de-mer’
NCV:	Pt Sandwich	<i>buelo</i>	‘k.o. bêche-de-mer’
NCV:	Paamese	<i>vile(ŋā tomorū)</i>	‘k.o. bêche-de-mer (?)’
NCV:	S Efate	<i>na-p^wlai (pako)</i>	‘k.o. bêche-de-mer, <i>Synapta maculata</i> ’
Fij:	Rotuman	<i>hula</i>	‘k.o. sea cucumber’
Fij:	Bauan	<i>(drī) vula</i>	‘k.o. sea-cucumber, chalk-fish’

Fij:	Wayan	<i>vula</i>	‘whitish sea cucumber, with nipple-like projections on upper body, possibly <i>Bohadschia marmorata</i> or <i>Holothuria fuscopunctata</i> ’
cf. also:			
SES:	Gela	<i>vula</i>	‘generic for cushion starfishes’

The following three terms are attributable to PCP.

PCP **loli* ‘sea cucumber taxon’

Fij:	Bauan	<i>loli</i>	‘a small sea cucumber, whose skin is scraped and used as a fish-poison’
Fij:	Wayan	<i>loli-loli</i>	‘ <i>Holothuria</i> sp. or spp., probably <i>H. atra</i> and/or <i>edulis</i> ’
Pn:	Tongan	<i>loli</i>	‘k.o. sea cucumber, comparatively long and hard’
Pn:	Niuean	<i>loli</i>	‘generic for several kinds of sea cucumbers including <i>Holothuria atra</i> ’
Pn:	Samoaan	<i>loli</i>	‘k.o. edible sea cucumber, <i>Holothuria</i> sp.’
Pn:	Hawaiian	<i>loli</i>	‘generic for sea cucumbers’

PCP **tarasea* ‘sea cucumber taxon’

Fij:	Bauan	<i>tarasea</i>	‘k.o. sea cucumber’
Fij:	Wayan	<i>tarasea</i>	‘sea cucumber with white speckles, possibly <i>Actinopyga</i> sp. or <i>Holothuria impatiens</i> , edible’
Pn:	Tongan	<i>telehea</i>	‘k.o. sea cucumber’
Pn:	Rennellese	<i>taŋasea</i>	‘k.o. reddish sea cucumber, edible’

cf. also:

Pn:	Samoaan	<i>sea</i>	‘k.o. sea cucumber’
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The following term literally means ‘eight breasts’, in reference to the nipple-like lumps on the upper body of this animal.

PCP **đuđu-walu* ‘k.o. sea cucumber, probably *Holothuria* sp.’

Fij:	Bauan	<i>suđu-walu</i>	
Fij:	Wayan	<i>đuđu-walu</i>	‘sea cucumber with nipple-like spikes, possibly <i>Holothuria pervicax</i> ’
Pn:	Tongan	<i>huhu-walu</i>	‘k.o. sea slug [sea cucumber], similar to <i>mokohunu</i> ’

There is a POc reconstruction, **qanupe*, whose meaning is indeterminate between ‘caterpillar’ and ‘k.o. sea cucumber’. All known WOc reflexes refer to sea cucumbers while all Eastern Oceanic reflexes refer to caterpillars (see ch.7, §17). When glossing the POc etymon one cannot, without external cognates, determine which of these two competing glosses was original, or indeed whether the POc form has two senses. In Wayan Fijian the English loan *katavila* refers both to caterpillars and to a kind of sea cucumber with caterpillar-like spiky protrusions.

POc **qanupe* ‘caterpillar or k.o. sea cucumber (indeterminate)’

PWOC **qanupe* ‘sea cucumber, holothurian’

NNG:	Kove	<i>anu(w)e</i>	‘trepang’
PT:	Dobu	<i>kanue</i>	‘beche de mer’
PT:	Kilivila	<i>kariva</i>	‘a white beche de mer’
PT:	Galea	<i>anue</i>	‘general term for all sea cucumbers’ (Lawrence Rutter pers.comm.)
MM:	Nakanai	<i>haluve</i>	‘trepang’

PEOC **qanupe* ‘caterpillar’

SES:	Ghari	<i>nive</i>	‘caterpillar’
Fij:	Rotuman	<i>aniha</i>	‘caterpillar, maggot’
Fij:	Bauan	<i>(b)anuve</i>	‘caterpillar’
Pn:	Tongan	<i>ʔunufe</i>	‘caterpillar (generic)’
Pn:	Samoa	<i>ʔanufe</i>	‘worm, caterpillar’
Pn:	Nanumea	<i>anufe</i>	‘caterpillar, worm, slug, etc.’

5.2.2 General term for sea cucumbers

Oceanic languages commonly have a general term for sea cucumbers, or more specifically for firm-bodied holothurids with tubular feet. (Long thin, soft-bodied holothurids lacking tubular feet are often classified as ‘worms’.) In the Fijian languages the generic term for firm-bodied holothurids is *drī*, in Marovo it is *puhaka*, in Nêlêmwa it is *imale* and in Hawaiian and Niuean it is *loli*. But in the absence of agreement across high-order subgroups no generic can be attributed to POc.

5.3 Asteroidea: sea stars and Ophiuroidea: starfish

Oceanic languages usually distinguish by name a number of starfish. The sole POc term for starfish reconstructed so far continues a PMP etymon.

PMP **saŋa-saŋa* ‘starfish’ (Blust 1986)

POc **saŋa-saŋa* ‘a starfish’ (lit. ‘branching’; cf. POc **saŋa* ‘bifurcation, crotch’)

Adm:	Lou	<i>saŋesaŋ</i>	‘starfish’
Adm:	Titan	<i>caŋa-caŋ</i>	‘generic for starfish’
Adm:	Nauna	<i>caŋa-caŋ</i>	‘starfish’
Adm:	Nyindrou	<i>saka-sak</i>	‘starfish’
Adm:	Lenkau	<i>saŋu-saŋ</i>	‘starfish’
PT:	Mengen (Poeng)	<i>(kamva) saŋ-saŋ</i>	‘starfish, forked’

cf. also:

Fij:	Bauan	<i>(ba)saga</i>	(1) ‘branchy’, (2) ‘starfish’
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Cushion stars, *Culcita* spp., are plump, round starfish with short arms. No POc lexical form is recoverable but it is noteworthy that Marovo and the Fijian languages agree in naming

cushion stars by expressions that mean ‘(possession) of a shark’; thus: Marovo *beibeiani te kiso* (‘lit. ‘shark’s drinking water’), Bauan *kali ni qio*, Wayan *kali ni ikō* (both lit. ‘shark’s pillow’). This suggests that the naming pattern is of POc antiquity, even though the forms are not cognate.

6 Cnidaria and Ctenophora: anemones, corals, jellyfish and hydroids

The phylum Cnidaria (formerly Coelenterata) consists of four classes of animals: Anthozoa (anemones and corals), Scyphozoa (jellyfish), Ctenophora (comb jellyfish) and Hydrozoa (hydroids) which have nettle-like stinging hairs or tentacles used to capture prey.

There are two main classes of Anthozoa, (1) soft corals, colonial polyps having flexible skeletons that produce spicules of calcium carbonate, with feathery tentacles, and (2) stony corals and sea anemones, with tentacles in multiples of six. Stony corals have a hard skeleton. True anemones have no skeleton and a fleshy body, with circlets of tentacles, often brightly coloured, in contrast to colonial anemones which form a green mat on rocks and rubble.

6.1 Anemones

No POc term denoting anemones is reconstructable on present evidence. A problem is that few dictionaries of WOc languages provide a term for this group of animals. PROc **druman(e,i)* ‘anemone’ has reflexes in North and Central Vanuatu, Fijian, Rotuman and Polynesian.

PROc **druman(e,i)* ‘anemone’

NCV:	Mota	<i>rum^wane</i>	‘a sea anemone’
NCV:	S Efate	<i>n-rimen</i>	‘a sea anemone’
Fij:	Rotuman	<i>nunami</i>	‘anemone’ (metathesis)
Fij:	Wayan	<i>dromani</i>	‘generic for anemones’

PPn **rumane* ‘sea anemone’ (POLLEX)

Pn:	Tongan	<i>ūmana</i>	‘anemone’
Pn:	Samoan	<i>lumane</i>	‘anemone’
Pn:	W Futunan	<i>rumane</i>	‘sea anemone’
Pn:	Ifira-Mele	<i>(a)rumani</i>	‘anemone’

**druman(e,i)* has no certain antecedent in POc but may derive from POc **droman* ‘leech’, with semantic change and addition of a final vowel. Note that the NCV reflexes of **droman* show an initial high vowel and, in some cases, a labiovelar second consonant, pointing to PNCV **ruma* ‘leech’.

POc **droman* ‘leech’ (cf. ch.7, §21)

NNG:	Manga	<i>doman</i>	
NNG:	Adzera	<i>uaman</i>	
PT:	Dobu	<i>domana</i>	
PT:	Molima	<i>domana</i>	‘mountain leech’
PT:	Motu	<i>doma</i>	
PT:	Nimoa	<i>dome</i>	

MM:	Tolai	<i>domol</i>
NCV:	Raga	<i>rim^wa</i>
NCV:	NE Ambae	<i>rim^we</i>
NCV:	Tamambo	<i>ruma</i>

6.2 Corals

Corals are colonies of small polyps which secrete a hard skeleton, forming a base on which the colony grows. Soft corals include sea fans, sea whips, sea feathers and sea blades. Hard corals include brain coral, staghorn coral and branching corals. Stony corals form a boulder, with the polyps emerging only at night. The distinctive brain corals are formed by corallettes clustering so close that they form sinuous valleys. Shallow underwater corals secrete limestone skeletons. The limestone is useful for a variety of purposes, including rubble for building house foundations and floors, and for making plaster. A rough, porous white coral is used as an abrasive in woodwork.

Oceanic languages generally have a generic name for living corals of the branching type and often distinguish several kinds. The Arosi dictionary lists eight different coral taxa, including six kinds of branching coral. However, dictionaries and wordlists seldom provide clear zoological identifications.

PMP **lajay* ‘coral’ (see vol. 2:102)

POc **laje* ‘generic for branching corals’

NNG:	Gedaged	<i>lad</i>	‘k.o. coral, short and flat’
PT:	Motu	<i>lade</i>	‘k.o. coral’
MM:	Maringe	<i>(glæ)laje</i>	‘coral’
SES:	Gela	<i>lade</i>	‘generic for branching corals’
SES:	Lau	<i>lade</i>	‘branching coral’
SES:	Arosi	<i>lade-lade</i>	‘coral’
		<i>rade</i>	‘coral’
NCV:	Mota	<i>las</i>	live coral of branching kinds’
SV:	Anejoñ	<i>n-las</i>	‘live coral on a reef’ (John Lynch, pers. comm.)
Fij:	Rotuman	<i>læs</i>	‘coral, lime’
Fij:	Wayan	<i>lase</i>	‘generic for branching corals’
Fij:	Bauan	<i>lase</i>	‘common branchy coral’
Pn:	E Futunan	<i>lase</i>	‘lime’

PMP **buŋa* ‘flower, blossom’, **buŋa ni batu* ‘coral sponge’ (see vol.2, p.103)

POc **buŋa* ‘smooth round coral’

NNG:	Takia	<i>buŋ</i>	‘large white coral’
NNG:	Gedaged	<i>buŋ</i>	‘a round coral growth’
MM:	Nakanai	<i>buga</i>	‘plate-shaped coral’
MM:	Bola	<i>buŋa</i>	‘k.o. coral’
MM:	Babatana	<i>buŋa-na</i>	‘large whitish stones found on the reef, calcified coral’

NCV:	Mota	<i>puŋa</i>	‘k.o. coral (madrepore)’
Fij:	Bauan	<i>vuŋa</i>	‘a porous coral rock in the sea’
PPn * <i>puŋa</i> ‘coral rock’			
Pn:	Niuean	<i>puŋa</i>	‘limestone, coral rock’ (<i>puŋa-puŋa</i> ‘limestone platform on the reef’)
Pn:	Tongan	(<i>mata</i>) <i>puŋa</i>	‘k.o. rather soft rock or stone, apparently a compact form of coral’
Pn:	Samoaan	<i>puŋa</i>	‘k.o. coral, used for polishing and as weights in breadfruit storage pits’
Pn:	Rennellese	<i>puŋa</i>	‘general name for flat or round sharp coral’
Pn:	Tikopia	<i>puŋa</i>	‘marine rock, probably coral’
Pn:	Māori	<i>puŋa-puŋa</i>	‘pumice’
Pn:	Hawaiian	<i>puna</i>	‘coral’

6.3 Scyphozoa, Ctenophora and Hydrozoa: true jellyfish, comb jellyfish and hydroids

True jellyfish (Scyphozoa) are members of the Cnidaria, whose tentacles face down. They represent the medusa or free-swimming phase of Scyphozoa, preceding their polyp phase. Ctenophora, comb jellyfish, are colourless, oval blobs of jelly that float slowly. Hydrozoa are polyps which form fuzz-like colonies on rocks, after a brief phase as a free-swimming organism. This group includes fire corals, hydroids and siphonophores. Hydroids are feathery colonial organisms growing on the surface of coral.

Oceanic languages often distinguish several different kinds of jellyfish, including the spectacular Portuguese man o’ war or bluebottle (*Physalia physalia*) but no POC terms for any jellyfish taxa are recoverable. Two PPn terms for jellyfish are reconstructable. One, referring to the Portuguese man o’ war, is well supported and has a cognate in Bauan Fijian, where it refers to a hydroid.

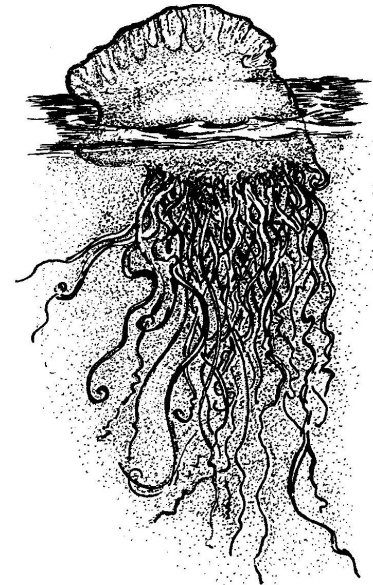


Figure 4.10 *Physalis* sp., Portuguese man o’ war

PCP **bak(u)i* ‘k.o. jellyfish or hydroid’

Fij:	Bauan	<i>bakui</i>	‘Hydra (colonial polyp)’
PPn * <i>paki(paki)</i> ‘Portuguese man o’ war (bluebottle), <i>Physalia</i> sp.’ (POLLEX gives * <i>paki</i>)			
Pn:	Tongan	<i>peki-peki</i>	‘bluebottle, stinging jellyfish’
Pn:	Niuean	<i>paki</i>	‘Portuguese man o’ war, <i>Physalis</i> sp.’
Pn:	East Uvean	<i>paki(a)</i>	‘Portuguese man o’ war, <i>Physalis</i> sp.’
Pn:	Hawaiian	<i>paki(malau)</i>	‘Portuguese man o’ war, <i>Physalis</i> sp.’
Pn:	Ifira-Mele	<i>paki-paki</i>	‘jellyfish’
Pn:	Tikopia	<i>pakipaki</i>	‘Portuguese man o’ war, <i>Physalis</i> sp.’

PPn **kalukalu* ‘k.o. jellyfish’

Pn:	Tongan	<i>kolukalu</i>	‘generic for certain kinds of jellyfish’
Pn:	Samoan	<i>ʔaluʔalu</i>	‘k.o. edible jellyfish’
Pn:	Nanumea	<i>kalikali</i>	‘jellyfish sp.’

cf. also:

Pn:	Rennellese	<i>kaŋukaŋu</i>	‘an insect’
Pn:	Māori	<i>karukaru</i>	‘spongy matter in a gourd, clotted blood, blood’

A Proto SE Solomonic term for anemone, or possibly jellyfish, is reconstructable which may be cognate with PPn **mama* ‘chiton’ (see §4.4).

Proto SE Solomonic **mama* ‘k.o. anemone or jellyfish’

SES:	Gela	<i>mama(ndao)</i>	‘sea creature, soft, no shell’
SES:	Arosi	<i>mama(nongi)</i>	‘a sea anemone; eaten’
SES:	Lau	<i>mama-e-lade</i>	‘small blue jellyfish on dead coral’ (Fox 1974)
		<i>mama-i-lade</i>	‘sea anemone’ (Akimichi 1978)

The following PCP term may have denoted a kind of hydrozoa but the diversity of vague glosses given to its reflexes makes this uncertain.

PCP **bulewa* ‘an organism growing on rocks, possibly encrusting brown rock coral’

Fij:	Bauan	<i>bulewa</i>	‘k.o. coral, clinging to rocks, eaten by fish’
Fij:	Wayan	<i>bulewa</i>	‘slimy brownish organism, growing on rocks and floating on sea, eaten by fish’

PPn **pulewa* ‘marine substance/creature with stone-like or rough exterior’ (POLLEX)

Pn:	Kʻmarangi	<i>purewe</i>	(1) ‘sandpaper-like growth on coral’, (2) ‘coral variety’
Pn:	Uvean	<i>puleva</i>	‘k.o. sea cucumber’
Pn:	Mangarevan	<i>pureva</i>	(1) ‘roe of fish’, (2) ‘yellow scum floating on the sea from about 17-21 Feb. Eaten by fish’
Pn:	Hawaiian	<i>pūlewa</i>	‘k.o. stone, used as sinker’

7 Annelida: worms

Many annelid (segmented) worms live in tropical marine habitats. The two main groups are Oligochaeta (with few bristles) and Polychaeta (with many bristles). Marine worms are mainly Polychaeta and include fireworms, feather duster worms, spaghetti worms, Christmas tree worms and bobbit or palolo worms. Reconstructions are available for just two marine worm taxa.

7.1 *Sipunculus* sp., sandworm

POc **ibo* ‘k.o. sandworm, probably *Sipunculus* sp.’

MM:	Roviana	<i>ibo</i>	‘small seaworm, much used for bait’
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Mic:	Kiribati	<i>ibo</i>	‘a sandworm, <i>Sipunculus indicus</i> ’
Fij:	Bauan	<i>ibo</i>	‘large edible seaworm’
Fij:	Wayan	<i>ibo</i>	‘k.o. sandworm, <i>Sipunculus</i> sp.’
Pn:	Samoa	<i>ipo</i>	‘edible sandworm, <i>Sipunculus</i> sp.’
Pn:	Nanumea	<i>ipo</i>	‘sp. of worm found on the beach’

cf. also:

MM:	Teop	<i>iobo</i>	‘seaworms’ (-o- unexpected)
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Although this cognate set formally matches PMP **imbaw* ‘marine mollusc sp.’ (Blust 1980a: 77) the latter reconstruction rests on cognates in two WMP languages which both refer to bivalves.

7.2 Fireworms (Polychaeta)

Fireworms, 5–18 cm long, bear many white bristles along their sides which can cause itching when touched. They bear a superficial resemblance to centipedes and millipedes. A well-supported PMP and POc reconstruction for ‘centipede’ exists, namely **qalipan*, continued in PCP as **qaliva* ‘millipede’. A separate term for ‘fireworm’, sometimes called ‘sea centipede’, is attributable to POc based on agreements between Saliba, a Papuan Tip language, and Polynesian witnesses. It appears that in PPn a single term, **weli*, was applied both to fireworms and to centipedes and furry millipedes. Glosses given to cognates in North-Central Vanuatu and Southeast Solomonian suggest that this range of reference may well have existed in POc.

POc **weli* (1) ‘fireworm, sea centipede’, (2) ‘? k.o. millipede or centipede’

PT:	Saliba	<i>yeli-yeli</i>	‘fireworm, <i>Pherecardia striata</i> ’
SES:	Arosi	<i>weli</i>	‘black thickbodied millipede, <i>Iulus</i> sp, found on or near the coast’
		<i>weri(marumu)</i>	‘sp. of millipede with furry body’
NCV:	Raga	<i>weli, ueli</i>	‘small iridescent centipede’
NCV:	Uripiv	<i>na-wel</i>	‘palolo worm’

PPn **weli* (1) ‘centipede’, (2) ‘marine annelid like a centipede’ (cf. POLLEX)

Pn:	E Futunan	<i>veli</i>	‘a venomous creature found on the reef’
Pn:	Tongan	<i>veli</i>	‘a hairy worm that lives mostly in water’
Pn:	Samoa	<i>veli</i>	‘a fish that stings when touched’
Pn:	Pukapukan	<i>veli</i>	‘a variety of sea centipede’
Pn:	Tikopia	<i>veri</i>	‘marine animal on reef: long, segmented; stings painfully if trodden on’
Pn:	Mangarevan	<i>veli</i>	‘marine annelid like a centipede’
Pn:	Hawaiian	<i>weli</i>	‘a holothurian’
Pn:	Māori	<i>weri</i>	‘centipede’
Pn:	Tahitian	<i>veri</i>	‘centipede’

cf. also:

PT:	Dobuan	<i>p^wali-keke</i>	‘millipede’
PT:	Molima	<i>p^wali-keke</i>	‘poisonous millipede’
SES:	Lau	<i>fari-fari</i>	‘scorpion’

7.3 Palolo worm (*Eunice viridis*, aka *Palola viridis*, *Leodis viridis*)

The palolo worm is distributed from Indonesia to the central Pacific. It burrows into coral. When spawning, the posterior end, filled with sperm and eggs, breaks off and swims to the surface. The annual spawning or ‘rise’, governed by the phase of the moon, occurs at regular times in the months October to December and at these times people scoop up the worms which are cooked and eaten.

A name for the palolo worm is attributable to PEOc, based on cognates shared by SES and NCV languages. The former reflect **odu*, the latter **udu*. The only known WOc cognate occurs in a Santa Isabel language, Maringe: *na-udu*, where *na-* reflects the POC common noun marker **na*. The Maringe form may be a borrowing from a neighbouring SES language but it is noteworthy that its first vowel agrees with NCV rather than SES witnesses.

MM: Maringe *na-udu* ‘*Leodis viridis*, palolo worm’

PEOc **(o,u)du* ‘*Leodis viridis*, palolo worm’

Proto SE Solomonic **odu* ‘*Leodis viridis*, palolo worm’

SES: Gela *odu*

SES: Ghari *odu* ‘a worm that lives in coral’

SES: Arosi *ogu, oku*

SES: Lau *?odu, ?ogu*

SES: Sa’a *oku*

SES: ’Are’are *?odu, ?oku*

PNCV **udu* ‘*Eunice*, palolo worm’ (Clark 2009)

NCV: Mota *un*

NCV: Mwotlap *n-in*

NCV: Raga *udu*

NCV: Big Nambas *n-ud*

NCV: Neve’ei *nu-wud*

A separate term is reconstructable for PCP, with reflexes in Fijian and Polynesian languages.

PCP **balolo* (1) ‘*Leodis viridis*, palolo worm’, (2) ‘name of the months when this worm rises’

Fij: Bauan *balolo*

Fij: Wayan *balolo*

PPn **palolo* (1) ‘palolo worm’, (2) ‘name of the months when this rises’

Pn: Tongan *palolo*

Pn: Samoan *palolo*

Pn: East Uvean *palolo*

Pn: Ifira-Mele *paroro* ‘red or green marine micro-organism with bad smell’

8 Poriphera: sponges

Sponges are conspicuous inhabitants of coral reefs. They come in a variety of shapes and sizes, attaching themselves wherever they can find a space. Some Oceanic languages have a general term for sponges, e.g. Lau *losi*, *lo-losi*, Gela *loi-losi*, Roviana *puha*, Dobuan *balu*, Motu *puta*, Sa'a *hulo*, but no widespread cognate sets have been noted, other than the following from Polynesian languages.

PPn **oma* 'sponge'

Pn:	Tongan	<i>oma</i>	
Pn:	Niuean	<i>omo(mi)</i>	
Pn:	Samoaan	<i>omo(mi)</i>	
Pn:	Tokelauan	<i>oma</i>	
Pn:	Marquesan	<i>oma-oma</i>	'k.o. jellyfish'

9 What proportion of POc taxa have been reconstructed?

Leaving aside the collective term **pinayoda*, the number of fairly secure POc reconstructions for aquatic (including semi-aquatic) invertebrate taxa is 42, with a few additional tentative reconstructions at POc level and a number of other reconstructions attributable to PEOc or PWOC. Taking the Wayan figure of about 240 taxa as fairly typical of those Austronesian maritime communities which exploit fringing reefs and mangrove swamps, it follows that 42 is probably less than a fifth of the total number of aquatic taxa distinguished by POc speakers. The breakdown in Table 4.2, comparing Wayan with POc, indicates the distribution of the shortfalls across the main groups of aquatic invertebrates.

The relative paucity of POc reconstructions can be attributed in large part to gaps in the coverage provided by dictionaries of contemporary languages. Few dictionaries give anything like an exhaustive listing of terms for invertebrates. However, a pattern is discernable in the kinds of terms that can/cannot be reconstructed. One important category of terms almost completely missing from our reconstructions is binomials. A run through the list of reconstructions shows that all the POc terms are uninomials (unitary lexemes). By contrast, about a third of the Wayan names are binomials, including 40 of the 105 gastropod taxa, but only seven of the 35 bivalve taxa.

Why are uninomials more stable than binomials? Berlin (1992) argues that in folk taxonomies of wild animals and plants the most salient and well-marked categories for purposes of identification are folk generics (see ch.8, §1.2.3). Names of taxa at the level of folk generic are usually uninominals (e.g. English *owl*, *whale*, *oak*, *willow*) or idioms, e.g. *blackbird*, *she-oak*, *pussy willow*). A folk generic may have a number of folk specifics, which are perceived as closely related but distinct types. These are typically known by binomials, made up of a folk generic plus a descriptive modifier which refers to one or another distinguishing feature of the taxon – its characteristic habitat, colour, size, shape, etc., e.g. *barn owl*, *grass owl*, *sooty owl*, *hump-backed whale*, *blue whale*. Folk generics commonly fall under high-order taxa, particularly the type that Berlin calls a *life-form*, such as English *fish*, *bird*, *snake*, and *tree*. Sometimes levels between life-form and folk generic are distinguished and Berlin calls these *intermediates*.

Table 4.2 Terms for aquatic invertebrate groups known for Wayan and Proto Oceanic

	Wayan	POc
Crustaceans		
lobsters	3	1
prawns/shrimps	7	1
crabs (Brachyura)	33	7
crabs (Anomura)	4	4
Cirripedia	1	0
subtotal	48	13
Molluscs		
gastropods	105	7
bivalves	35	10
chitons	4	0
cephalopods	4	3
subtotal	148	20
Echinoderms		
sea cucumbers	19	1
sea urchins	8	2
starfish, brittle starfish	4	1
subtotal	31	4
Cnidaria		
corals and anemones	11	2
jellyfish	2	0
subtotal	13	2
Worms	5	3
TOTAL	245	42

The POc terms for aquatic invertebrates that have survived are exclusively generics of some sort, either folk generics or high-order generics. The modifiers that distinguish folk specifics have not been stable. There are, perhaps, several reasons why modifiers are unstable. One is the variability of local species. Although the same orders, families and genera of common reef and shoreline animals are usually common to different regions of the tropical Pacific, the species are more variable from region to region. Migrants might be expected to apply new modifiers to newly encountered species if these were clearly distinct from those known in their former homeland. Another factor is the wide range of distinctive characteristics exhibited by certain species and genera of the same family, such as colour, shape, size and behaviour. Speakers can be expected from time to time to change the choice of the characteristic used to distinguish one taxon terminologically from its sister taxa. Finally, particular modifying terms may themselves be replaced by synonyms which come into favour, sometimes leading to loss or change of meaning in the original modifier.

Some groups of invertebrates show a much higher ratio of taxa reconstructed to POc level than others, when compared with Wayan totals. Among the crustaceans, the Anomura (hermit crabs) have a high ratio with 4/4, whereas the Brachyura (true crabs) score only 7/33. Prawns and shrimps score much lower (1/7), the sole POc term reconstructed being the generic for prawns and lobsters. Sea cucumbers and sea urchins also show a very low ratio: three POc reconstructions compared with 27 taxa distinguished in Wayan. The cephalopods (3/4) have by far the highest ratios among the molluscs. The bivalves (10/35) score much higher than the gastropods (7/105), a difference not solely attributable to the fact that binomials make up 40 of the 105 Wayan gastropod names but only 7 of the 35 bivalve names.

These ratios can be taken as a very rough measure of how persistent POc names have been for particular invertebrate groups: a high score for POc indicates a high retention rate of terms in daughter languages, a low score the converse. Very likely there is a correlation between how persistent a term is, and how salient or important the referent is to members of the speech community. Of course, a creature can be salient for any of a number of reasons: economic importance, large size, unusual appearance, being dangerous, and so on. Closer study of such matters must be left for another occasion.

5 *Mammals, reptiles, amphibians*

MEREDITH OSMOND AND ANDREW PAWLEY

1 Introduction

This chapter is concerned with the Proto Oceanic lexicon for three groups of vertebrates: mammals, reptiles and amphibians. Birds and fish each have a chapter to themselves.¹

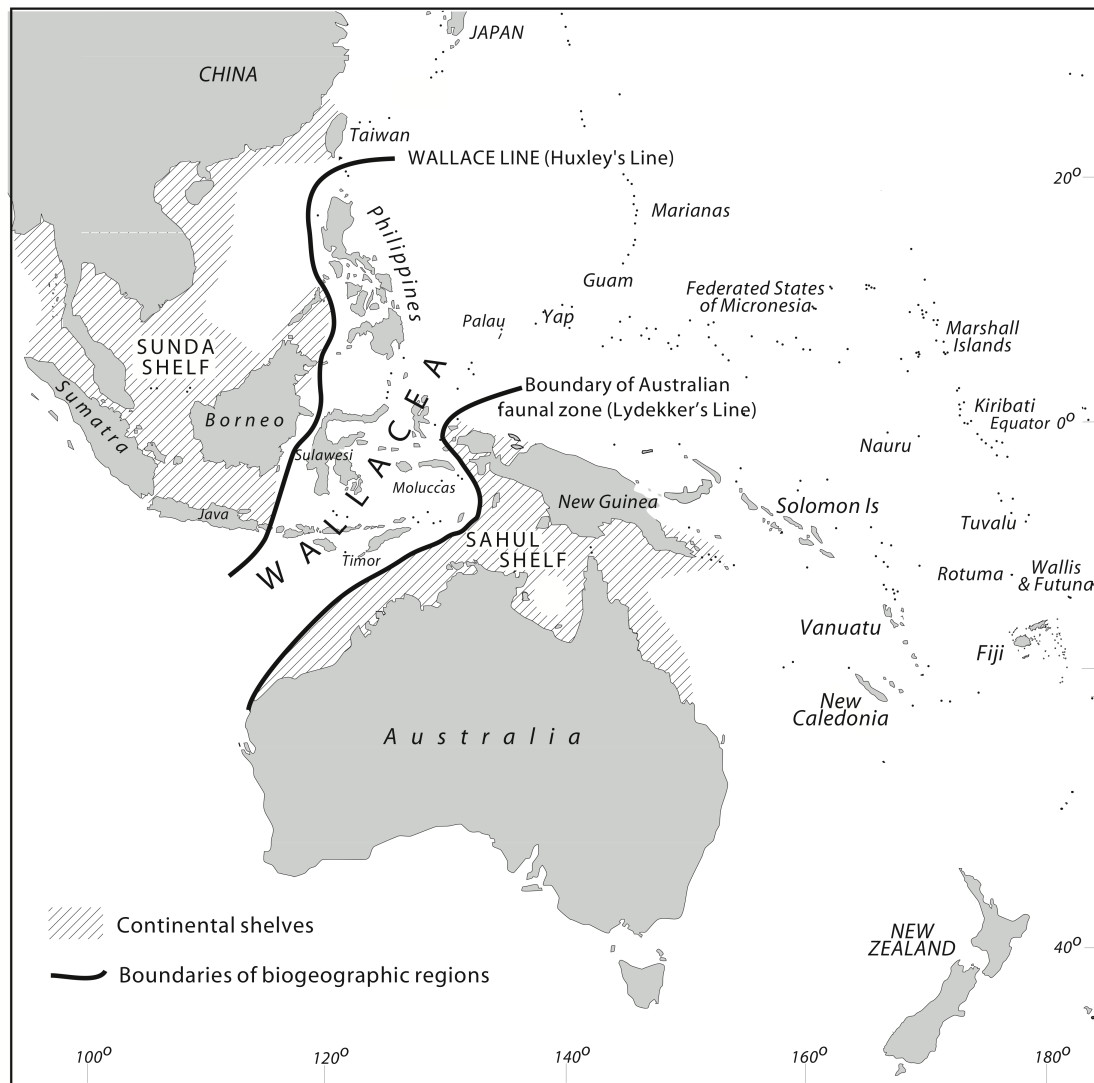
Attempts to reconstruct POc names for land vertebrates face a number of difficulties. The most fundamental of these relate to discontinuities in the fauna that reflect long-established ocean gaps. Most mammal and reptile species, of course, live on land and cannot cross large ocean gaps. As a consequence cognate sets for certain animal taxa have highly restricted distributions. This is especially true of mammals.

A major zoogeographical boundary divides the mammals native to the Austronesian-speaking world. The Wallace Line, which runs north–south through the Indo-Malaysian Archipelago, separating Sumatra, Borneo, Java and Bali from islands to the east, marks (among other things) the westernmost limits of marsupial mammals. West of this boundary only placental mammals occur. The native land mammals that would have been familiar to speakers of Proto Oceanic, living in the Bismarck Archipelago, were almost entirely different from those known to their ancestors in the Proto Malayo-Polynesian homeland, and from those found in Remote Oceania, where most of the best-described Oceanic languages are now spoken.

East of the Wallace Line there is a region of the Indo-Malaysian Archipelago, Wallacea, where relatively few land mammals occur but there is some overlap between placentals and marsupials. Lydekker's Line forms the eastern boundary of Wallacea. It separates the Australia-New Guinea faunal zone, home to a rich marsupial fauna, from the islands of eastern Indonesia: Sulawesi, Lombok, Flores, Timor, and the Moluccas. Only bats and rodents are common to both the Asian and the Australia-New Guinea regions.

These faunal regions reflect geomorphological boundaries. The islands west of Wallace's Line lie on the Sunda Shelf, a shallow continental shelf that was dry land at various times during the ice ages. As a consequence, the western islands of the Indo-Malaysian Archipelago

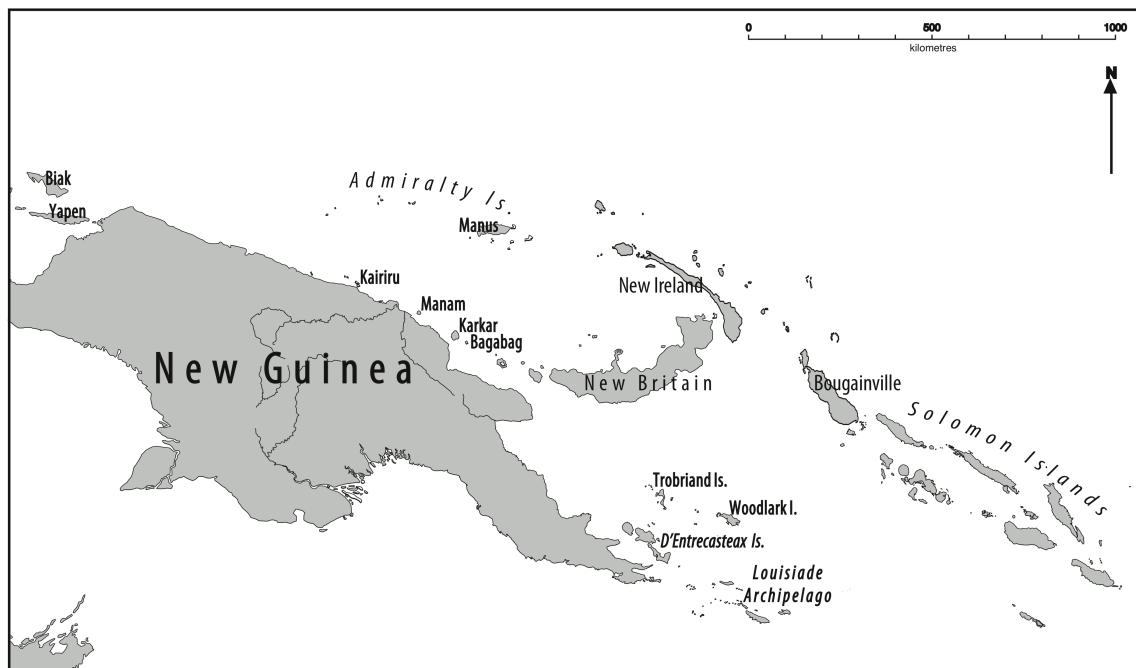
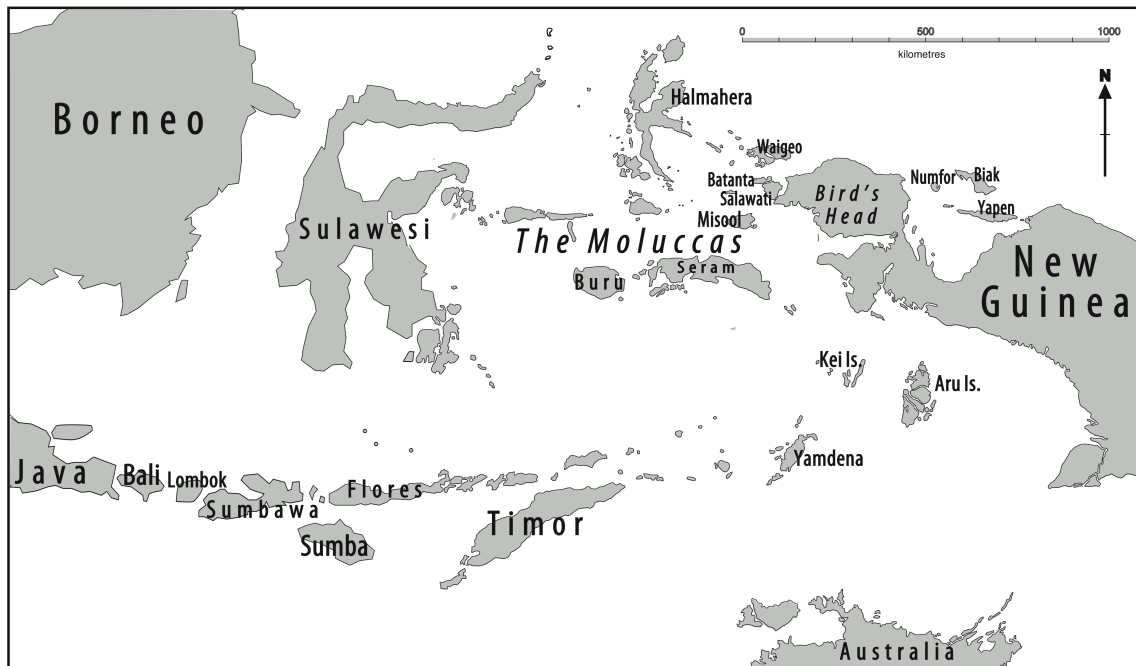
¹ Particular thanks are due to Malcolm Ross, Alexandre François and John Lynch for comments and additions to the data.



Map 5 Major zoogeographical boundaries in Island Southeast Asia

share a similar mammal fauna with the Southeast Asian mainland and, to a lesser extent, with the Philippines and Taiwan. However, a deep trench separates Bali from Lombok, and few Asian mammal species were able to cross this. Similarly, during parts of the ice ages Australia and New Guinea formed a single land mass, Sahul (also known as Greater Australia or Meganesia), but were always separated from the Moluccas and Timor by deep water. Also part of Sahul were the Aru Islands southwest of New Guinea, but not the Kei Islands. Off the Bird's Head, the West Papuan islands of Batanta, Gebe, Waigeo, Salawati and Misool (Mysol) were included, as were the islands of Cenderawasih Bay (Biak, Yapen, Numfoor) and the islands of the north coast shelf (Kairiru, Manam, Karkar, Bagabag). At the south end of New Guinea the D'Entrecasteaux Group, Louisiade Archipelago, Woodlark Island and the Trobriands were all part of the mainland. However, New Britain, New Ireland, the Solomons and the Admiralties were still separated from the New Guinea mainland and each other.

Robert Blust (1982, 2002, 2009) has demonstrated the relevance of the Wallace Line to the subgrouping of Austronesian languages. In the most generally accepted subgrouping of



Map 6 Island Southeast Asia and Northwest Melanesia: island names

Austronesian languages, all the Austronesian languages of New Guinea fall into a lower order group, namely Eastern Malayo-Polynesian. Blust writes

Since placental mammals are not native to areas east of the Wallace Line, PAN and PMP must have been spoken west of that boundary. In crossing the Wallace Line [Austronesian] speakers would have encountered marsupials for the first time. If this happened through separate migrations into eastern Indonesia and the western Pacific there would be no basis for expecting that the terms for marsupial mammals would be cognate, since they would have been independently invented (or borrowed) at different times and in different places. As it happens, however, many languages of eastern Indonesia and the Pacific reflect **kandoRa* ‘cuscus’ and **mansar/manser* ‘bandicoot/marsupial rat’ which could not have been present in PAN or PMP.

... it is simplest to attribute these innovations to a single speech community that was ancestral to the [Central Malayo-Polynesian, South Halmahera-West New Guinea and Oceanic] languages (2009:715–716).

Further significant zoogeographical boundaries occur within Oceania. As one travels from the New Guinea mainland to the Bismarck Archipelago, then east down the main Solomons chain and on into Remote Oceania, the land masses become smaller and the island groups further apart, and the faunal range declines markedly. Relatively few species of terrestrial mammals are widely distributed across Oceania. A good many taxa are restricted to New Guinea or to New Guinea, New Britain and New Ireland.

Reptiles and amphibians are not subject to the same geographical division. Terms for both crocodile and turtle occur on both sides of the Wallace Line and are reconstructable to PAn. Crocodiles were formerly present in Taiwan (see footnote on p.251), and their present breeding range extends from south-west India and the Philippines to the Santa Cruz group. Lizards and snakes are capable of swimming short distances, and are readily transportable on floating logs or rafts of vegetation, but the number of species shrinks as land masses decline in size and island groups become more widely scattered.

In the most generally accepted subgrouping of Austronesian languages, all the Austronesian languages of New Guinea fall into a lower order group, namely Eastern Malayo-Polynesian. It follows that for kinds of mammals found only in New Guinea we will not find a Proto Austronesian (PAn) or Proto Malayo-Polynesian (PMP) reconstruction.

The mammals known to POc speakers may be divided into those indigenous to the Bismarck Archipelago² and perhaps the north coast of New Guinea and those that humans brought to this region from island southeast Asia, namely the pig and dog and certain rat species.

2 Indigenous terrestrial mammals

2.1 Introduction

The indigenous mammal groups of Melanesia recorded in historic times are listed by Flannery (1995a:13–15). The main island of New Guinea has one tree kangaroo genus and four genera of wallabies. It has several species of bandicoot and a large variety of possums, including cuscuses, pygmy possums, ringtail possums and gliders. It has two genera of spiny ant-eaters

² For the location of the presumed POc homeland see vol.2, pp.17–34.

(monotremes). A less well known family is the Dasyuridae (formerly known as Phascogale), a family to which Tasmanian devils belong. The New Guinea dasyurids consist of quolls and antechinuses. The Bismarcks have only one bandicoot, one wallaby, and two species of phalanger. The Solomons have one phalanger. Murids and bats are represented by many different genera throughout New Guinea, the Bismarcks and the Solomons. In Vanuatu, New Caledonia, Fiji, Polynesia and Micronesia, the only native terrestrial mammals are bats. The range of a few indigenous mammals has been extended by human introductions.

2.2 Macropodidae

2.2.1 Wallabies (Genera *Dorcopsis*, *Dorcopsulus*, *Macropus*, *Thylogale*)

Four genera of wallabies occur in the New Guinea area. *Dorcopsis* is a genus of small rain-forest wallabies with an extensive range round the perimeter of New Guinea. One species, the black dorcopsis, is common on mountainous Goodenough Island in the D'Entrecasteaux group. A second genus, *Dorcopsulus*, the smallest of all the Macropodids, lives in mountain forests. A third genus, *Macropus*, the large sandy or agile wallaby, is primarily a savanna woodland animal of the south-eastern New Guinea mainland, but is also found on many of the Trobriand and D'Entrecasteaux islands and around Merauke in West Papua. It is hunted by many coastal people, an activity no doubt contributing to its somewhat erratic distribution. Flannery mentions several reports of a large wallaby, possibly *Macropus agilis*, from southern New Ireland, which he has so far been unable to verify (1995a:82). The fourth genus, *Thylogale*, is the small scrub wallaby or pademelon. Its range includes the lowlands of northern New Guinea as far west as Jayapura, the hills round Port Moresby, the Huon Peninsula, New Britain and New Ireland. Bali-Vitu, spoken off the north-west coast of New Britain, has a term for wallaby. Lapita sites in the Arawe Islands, off the south-west coast of New Britain, have yielded bones of *Thylogale browni* as well as the cuscus *Phalanger orientalis* and the flightless cassowary, all introduced species.

One wallaby species is found on the islands west of the Bird's Head, and others on Aru and on Kei. No wallabies are present in the Solomons or the Admiralties group. Although wallabies are now absent from the St Matthias group, bones of wallabies and a cuscus (*Spiloglossus maculatus*) have been recovered from Lapita middens excavated from the low flat coral island of Eloaue south-east of the high island of Mussau (Green 1979:37). Flannery and White state that the northern pademelon, *Thylogale browni*, was introduced into New Ireland some 7000 years ago, and that animals were possibly carried from there to the St Matthias group, although the species never became established there (Flannery 1995a:83).

The general pattern seems to be that different species adapt to particular areas, and are restricted to those areas. Although it may happen that two or three species are found within the territory familiar to a single language community, sources for each language usually give only one term for wallaby and it is likely that this is the generic.

A PWOC term for wallaby, **wakin*, is well supported, with reflexes in North New Guinea, Papuan Tip and Meso-Melanesian languages. If terms in two non-Oceanic languages spoken on the West Papuan coast are cognate, then **wakin* is reconstructable to PEMP and POC. The non-Oceanic terms, from Smits and Voorhoeve (1992:241), are glossed 'kangaroo', but the reference must be to small macropod species, popularly known as wallabies, as the larger species known as kangaroos are absent from New Guinea.

PEMP **wakin* 'wallaby'SHWNG: Dusnew *waen* 'kangaroo' [wallaby]SHWNG: Mor *uʔana* 'kangaroo' [wallaby]POc **wakin* 'wallaby'NNG: Lukep (Pono) *ok* 'wallaby'NNG: Mangap *wok* 'wallaby'NNG: Bing *woy* 'wallaby'NNG: Bilibil *wei* 'wallaby'NNG: Gedaged *woi* 'kangaroo (generic), incl. *Macropus*, *Dorcopsis*'PT: Kilivila *waila* 'wallaby'PT: Iduna *wayi(tuli)* 'large grey wallaby'PT: Gabadi *vai(aru)* 'wallaby, *Macropus agilis*'PT: Hula *wayi* 'wallaby, *Macropus agilis*'MM: Sursurunga *wak* 'wallaby, includes Agile Wallaby, Forest Wallaby'MM: Konomala *uakin* 'wallaby'MM: Minigir *okin* 'wallaby'MM: Tolai *okin* 'wallaby'MM: Tolai (Nodup) *okini* 'wallaby'MM: Label *uakin* 'wallaby'MM: Siar *uakin* 'wallaby'

Several additional Papuan Tip terms support a PPT reconstruction **wagita* 'wallaby'. These appear to be compounds derived from **wakin* + **ta(u)*, the second element possibly from POc/PPT **tau* 'person, body'.

PPT **wagita* 'wallaby'PT: Diodio *vayita* 'wallaby'PT: Bwaidoga *vayita* 'wallaby, Agile wallaby'PT: Molima *wagilita* 'bandicoot-like animal that eats coconuts'PT: Iamalele *vagitau* 'opossum'

Agreements between NNG and PT languages point to a PNGOc term, **makan*. Reflexes in PT languages predictably add a final *-i*. Retention of final **n* plus the added vowel is unexpected in Motu and Magori, and suggests borrowing from a SE Papuan source, perhaps a dialect of Suau. At least two Central Papuan languages use reflexes of **makan* 'wallaby' as a generic for 'fish'. Ross (1994:422) uses the example of the two Sinaugoro dialects, one inland (Taboro), the other coastal (Balawaia), to suggest that the term was in some places generalised to cover protein food, and then restricted in some coastal languages to the main protein food available, namely fish.

PNGOc **makan* 'wallaby, *Macropus agilis*'NNG: Dami *maga* 'wallaby'NNG: Tumleo *magə* 'wallaby'PT: Magori *magani* 'wallaby, *M. agilis*'PT: Hula *mani* 'wallaby'PT: Tawala *makani* 'wallaby type'



Figure 5.1 *Dendrolagus dorianus*, Doria's tree kangaroo

PT:	Taboro	<i>mayani</i>	'wallaby'
PT:	Balawaia	<i>mayani</i>	'fish'
PT:	Motu	<i>mayani</i>	'wallaby, <i>M. agilis</i> '
PT:	W Mekeo	<i>maka</i>	'fish'
PT:	Mekeo	<i>maʔi</i>	'wallaby, <i>M. agilis</i> '
cf. also:			
NNG:	Matukar	<i>maku(sik)</i>	'wallaby' (- <i>sik</i> perhaps from POc * <i>siki</i> 'small')
NNG:	Kairiru	<i>meik</i>	'wallaby'
NNG:	Ali	<i>meik</i>	'wallaby'
PT:	Kuni	<i>mau</i>	'wallaby, <i>M. agilis</i> '

2.2.2 Tree kangaroos (Genus *Dendrolagus*)

Within the Oceanic region, tree kangaroos (genus *Dendrolagus*) are restricted to mainland New Guinea and some close offshore islands. There are about eight species in the region. *D. inustus*, the grizzled tree kangaroo, is found in a wide band across northern New Guinea from the Bird's Head Peninsula to the Torricelli Mountains. *Dendrolagus scottae*, Scott's tree kangaroo, occurs in lowlands forests in Sandaun Province, Papua New Guinea. The other

species have distributions that make them less likely to be known to speakers of Oceanic languages. *D. matschiei*, the Huon tree kangaroo, with chestnut-red pelage and long yellow tail, is restricted to the heavily forested mountains of the Huon Peninsula. *D. dorianus*, Doria's tree kangaroo, is a large brownish-black animal that lives in the cloud and moss forests of montane New Guinea. *D. goodfellowi* and the closely related *D. pulcherrimus*, the smallest species, are found in mid montane zones, *D. stellarum* in the highlands of west-central New Guinea, *Dendrolagus spadix*, in the south-western lowlands of Papua New Guinea and *D. mbaiso* in the highlands of west-central New Guinea.

To date, tree kangaroos are known outside the New Guinea mainland only on Umboi (presumably carried by humans from the nearby Huon Gulf area), Yapen and Salawati and Cape York, Australia (Van Deusen 1972:713, Flannery 1995a:126–143). There is no record of their existence in the Admiralties or the Solomons, although we have a term for tree kangaroo from Sursurunga, New Ireland, and another from Kaulong, New Britain, presumably because people there are aware that they exist elsewhere.

Fewer than twenty terms for *Dendrolagus* have been collected in total, all bar one from North New Guinea, the odd one out being Meso-Melanesian: Sursurunga *atal* 'wallaby, includes Matschie's tree kangaroo'. Of the NNG terms, one is from New Britain (Kaulong *elan* 'possum, also tree wallaby'), two are from a Schouten Chain language on the north coast (Sisano *nep* and *ʔapar*, both apparently meaning 'tree kangaroo') and one is from Bing, a Vitiaz Strait language north of the Huon Peninsula (*dagviebiy* 'tree kangaroo'). The remainder are from Huon Peninsula languages. No reconstructions are possible from these data other than a single low level term, Proto Buang **kekuŋ*.

2.3 Cuscuses (Phalangeridae)

The phalangerids include the cuscuses of the New Guinea region and the brushtail possums of Australia. They are large arboreal herbivores. Several species of cuscus are present in mainland New Guinea and in the D'Entrecasteaux, Louisiade and Trobriand Islands. Phalangers are common in the islands immediately to the west and southwest of New Guinea, including Sulawesi, Timor, Ambon, Seram, Buru and Kei. Groves (1984) notes that Ambon and Seram have a distinct variety of *Phalanger orientalis*, and concludes that it got there without human intervention.

In prehistoric times certain species were translocated by humans to Island Melanesia and the Moluccas. New Britain, New Ireland and the Solomons each have an introduced species. *Phalanger orientalis*, the northern common cuscus (aka grey cuscus) is an abundant lowland species native to New Guinea that about 20,000 years ago was taken to New Ireland, where it became an important prey species (Leavesley 2005). It was introduced to the Solomon Islands and also to Timor at some time in the last 7,000 years (Flannery and Wickler 1990, Glover 1986). A single species, *Spiloglossus maculatus*, is found in the Admiralties, including Manus, Wuvulu and Ninigo. It is commonly hunted on Manus.

There is a well supported POc reconstruction for 'cuscus', **k^(w)adroRa*. For a number of languages, sources give the gloss 'possum' to its reflexes ('possum' is often used loosely in Australian English to refer to any member of the superfamily Phalangerioidea), but this can only refer to a phalanger.

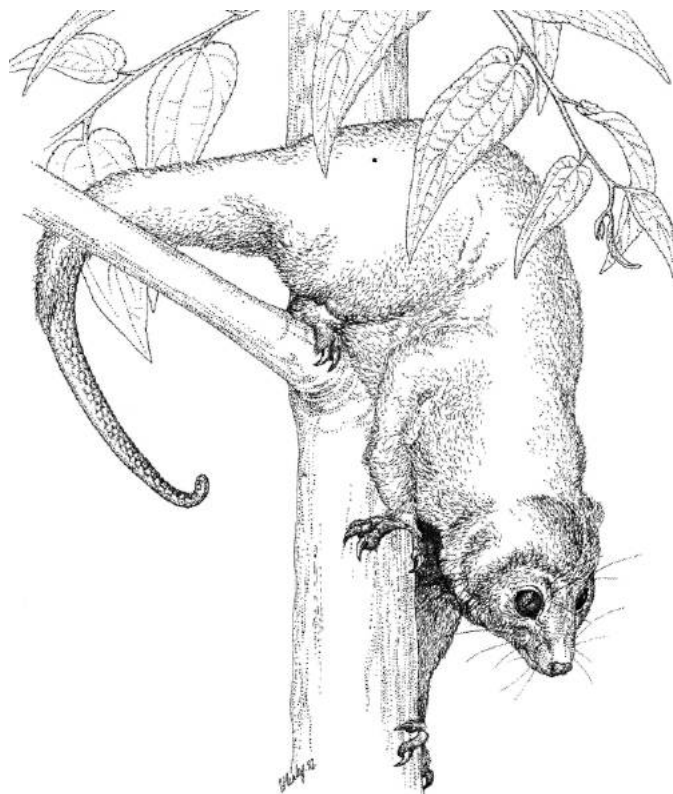


Figure 5.2 *Spiloglossus maculatus*, spotted cuscus

PCEMP **kandoRa* 'cuscus' (Blust 2002)

CMP: Watubela *kadola* 'cuscus'

POc **k^(w)adroRa* 'phalanger, cuscus' (Ross 1988: **kadroRa*)

Adm:	Mussau	<i>aroa</i>	'phalanger; cuscus' (Smythe)
Adm:	Bipi	<i>koxa</i>	'cuscus' (metathesis)
Adm:	Sori-Harengan	<i>ohay</i>	'cuscus' (metathesis)
Adm:	Penchal	<i>kotay</i>	'cuscus' (metathesis)
Adm:	Nauna	<i>kocay</i>	'cuscus' (metathesis)
NNG:	Mangap	<i>kendēre</i>	'opossum'
NNG:	Gedaged	<i>kodoŋ</i>	'k.o. phalanger with tan or greyish fur'
NNG:	Manam	<i>ɔdora</i>	'cuscus'
PT:	Dobu	<i>k^wadoiya</i>	'possum'
PT:	Kilivila	<i>k^wadoya</i>	'cuscus'
PT:	Muyuw	<i>k^wadoy</i>	'cuscus, possum'
MM:	Tabar	<i>adora</i>	'cuscus'
MM:	Lungga	<i>yadora</i>	'possum'
MM:	Simbo	<i>yadora</i>	'possum'
MM:	Maringe	<i>kadara</i>	'possum'

The following Southeast Solomonic terms reflect **kadora*, with *-r-* for expected *-l-*. This is consistent with borrowing from Meso-Melanesian neighbours in the western Solomons.

SES:	Gela	<i>kadora</i>	‘cuscus’
SES:	W G’canal	<i>kadora</i>	‘cuscus’
SES:	Talise	<i>kadora</i>	‘cuscus’
SES:	Malango	<i>kadora</i>	‘cuscus’

A second reconstruction is more weakly supported. It is well represented in the Cristobal-Malaitan branch of SE Solomonic but otherwise is reflected only in Gela, where the reflex refers to a juvenile cuscus, and in one Papuan Tip language.

POc **pu(dr,d,j)(o,u)* ‘species of possum or cuscus’

PT:	Suau	<i>hudu</i>	‘striped possum’ (Flannery 1995b:203)
SES:	Gela	<i>vuto</i>	‘a young cuscus’
SES:	Owa	<i>futu</i>	‘possum’
SES:	’Are’are	<i>huto</i>	‘possum’
SES:	Kahua	<i>huto</i>	‘cuscus’
SES:	Longgu	<i>vuto</i>	‘cuscus’
SES:	Lau	<i>futo</i>	‘cuscus’
SES:	To’aba’ita	<i>futa</i>	‘cuscus’
SES:	Sa’a	<i>huto</i>	‘cuscus, phalanger’
SES:	Arosi	<i>huto</i>	‘cuscus’

2.4 Other possum families (Acrobatidae, Burramyidae, Petauridae, Pseudocheiridae)

Besides the cuscuses, four other families within the super-family Phalangerioidea are represented in New Guinea. They include little feather-tailed possums (Acrobatidae), pygmy possums (Burramyidae), sugar gliders, striped possums and long-fingered striped trioks (all Petauridae) and ringtail possums (Pseudocheiridae). The Acrobatidae and Burramyidae are restricted to the Australian-New Guinea land mass. Sugar gliders are also found in the D’Entrecasteaux, Louisiade and Trobriand Islands and New Britain, and outside the Oceanic region on Halmahera, Kei and Aru. They are absent from New Ireland, the Solomons and the Admiralties. The Pseudocheiridae are poor dispersers who prefer montane forests, and are confined to New Guinea and a few of the larger islands off the coast of western New Guinea. A PNGOc term for ‘sugar glider’ is supported by probable cognates shared by several Papuan Tip languages and at least one North New Guinea language. However, reflexes show a number of irregularities, and it is necessary to reconstruct doublets.

PNGOc **si(r,R)(a,e)si(r,R)(a,e)*, **di(r,R)(a,e)di(r,R)(a,e)* ‘*Petaurus breviceps*, sugar glider’

NNG:	Gedaged	<i>salesale</i>	‘sugar glider, <i>P. breviceps</i> ’ (vowel metathesis)
NNG:	Riwo	<i>silesile</i>	‘k.o. marsupial’
PT:	Molima	<i>selasela</i>	‘sugar glider’
PT:	Iduna	<i>selasela</i>	‘flying squirrel, sugar glider’
PT:	Tawala	<i>selasela</i>	‘sugar glider’
PT:	Wedau	<i>sira-sira</i>	‘squirrel’ [sugar glider]



Figure 5.3 *Petaurus breviceps*, sugar glider

PT:	Lala	<i>dilodilo</i>	'glider phalanger' (-o unexpected)
PT:	Motu	<i>diledile</i>	'sugar glider, <i>P. breviceps</i> '
cf. also:			
PT:	Gapapaiwa	<i>surasura</i>	'flying squirrel'
MM:	Tolai	<i>diradira</i>	'flying squirrel' (d- for †Ø)

2.5 Bandicoots (Peroryctidae)

New Guinea is home to several genera of the family Peroryctidae, the bandicoots. They include *Echymipera* (common or spiny bandicoot, long-nosed bandicoot), *Peroryctes* (giant bandicoot, Raffray's bandicoot), and *Microperoryctes* (mouse bandicoot, striped bandicoot). The mouse bandicoot is found only in the west of West Papua but the other genera are distributed widely on mainland New Guinea. Bandicoots are not present in the Solomons. Spriggs (1997:54) writes that at Pamwak, in Manus, bandicoots appear suddenly in the archaeological record at about 13,000 BP and quickly become dominant in the faunal record. This suggests human introduction. To the west of New Guinea, outside the region occupied by speakers of Oceanic languages, bandicoot species are present on Seram, Yapen, Waigeo, Kei and Aru. Compilers of wordlists are often unfamiliar with bandicoots, describing them as 'large bush rats', 'marsupial rats' or similar.

A POc term for 'bandicoot', **m^wajar*, is well supported. There are reflexes in the Admiralties, North New Guinea, Papuan Tip and Meso-Melanesian subgroups referring to the bandicoot, and a probable reflexes in Ponapean and certain Fijian dialects with change of referent. External cognates are found in several CEMP languages of the Moluccas and islands to the south of the Bird's Head of New Guinea, where the reference is often to cuscus rather than bandicoot.



Figure 5.4 *Microperoryctes longicauda*, long-tailed bandicoot

PCEMP **mansar* ‘bandicoot, marsupial rat’ (Blust 1982, 2002)

CMP: Ujir (Aru)	<i>meday</i>	‘cuscus’ (Antoinette Schapper, pers. comm.)
CMP: Ambelau	<i>mate</i>	‘bandicoot, marsupial rat’
CMP: Kei	<i>medar</i>	‘cuscus’
CMP: Yamdena	<i>mande</i>	‘cuscus’

POc **m^wajar* ‘bandicoot’

Adm: Lou	<i>m^was</i>	‘bandicoot, marsupial rat’
Adm: Nauna	<i>m^wac</i>	‘bandicoot, marsupial rat’
NNG: Mangap	<i>mōzo</i>	‘bandicoot’
NNG: Wogeo	<i>m^waja</i>	‘cuscus’
NNG: Ali	<i>maic</i>	‘bandicoot’
PT: Sudest	<i>m^waja-m^waja</i>	‘bandicoot’
PT: Taboro	<i>moda</i>	‘bandicoot’
PT: Motu	<i>mada</i>	‘k.o. bandicoot’
MM: Meramera	<i>maso</i>	‘bandicoot’
MM: Tolai	<i>mā(η)</i>	‘bandicoot’
MM: Ramoaaina	<i>ma(n)</i>	‘bandicoot’
Mic: Ponapean	<i>(keli)m^wet</i>	‘k.o. small bat’ (<i>keli-</i> ‘prefix signifying danger, connection with spirit world’; Blust 2001)
Fij: Namosi	<i>η^waḍa</i>	‘k.o. large rat’ (Blust 1993)

The following are probably borrowed from a pre-Oceanic or early Oceanic language (Ross 1988:21):

NNG: Megiar	<i>madar</i>	‘bandicoot’
NNG: Takia	<i>madar</i>	‘bandicoot’

NNG: Yabem	<i>mojan</i>	‘marsupial rat, cuscus, possum, tree kangaroo’
NNG: Mapos Buang	<i>masan</i>	‘possum, <i>Pseudocheirus corinnae</i> : yellow-green ring-tailed possum’

2.6 Marsupial carnivores (Dasyuridae)

The Dasyuridae are a family of carnivorous and insectivorous marsupial rodents, including various antechinus species and quolls and, most famously, the Tasmanian devil. Five genera of dasyurids are unique to New Guinea and three genera are common to New Guinea and Australia. Most dasyurids are small, weighing between 100–500 grams, although quolls of the New Guinea rainforest may exceed half a kilogram in weight (Flannery 1995b:83). Dasyurids may be either diurnal or nocturnal, and some antechinus species are partly arboreal. Many species are found in rainforest, often at middle to high altitudes. Few members of the family have been recorded from coastal Austronesian-speaking areas, although one antechinus is found on Normanby in the D’Entrecasteaux Group, and other dasyurids have been recorded from the Aru Islands. Flannery (1995b:84) comments that quolls will enter villages to catch rats, and are respected as fierce predators by most New Guineans familiar with them, who show great caution when handling them.

No Oceanic terms for dasyurids have been recorded. It is likely that compilers of wordlists have generally not been familiar with dasyurids as such, and in some cases have referred to them by a term such as ‘small marsupial rodent’.

2.7 Echidnas (Tachyglossidae)

Monotremes are represented in New Guinea by two genera of echidna: *Tachyglossus* (short-beaked echidna) and *Zaglossus* (long-beaked echidna). Both are regarded as rare. Flannery (1995b:67) suggests that hunting pressure has severely reduced their numbers. Very little is known about the distribution and natural history of *Tachyglossus*, but it has been recorded in the Markham valley and around Port Moresby, and from the island of Salawati off the Bird’s Head. *Zaglossus* has also been reported from both the western and eastern extremities of New Guinea, but is found only where population densities are low. A term for the echidna is present in only two languages in our sample (Sinaugoro *modagini* ‘anteater’ (cf. *moda* ‘bandicoot’) and Motu *miyu* ‘short-beaked echidna’) and no reconstructions are possible.

2.8 Rats (Muridae)

Rats were a significant source of protein for many Oceanic communities in prehistoric times. The diversity of rat species diminishes sharply as one moves from New Guinea to the Bismarcks and Solomons. In New Guinea the murid fauna is ‘abundant and diverse, and for the size of the land mass, one of the most species-rich found anywhere on earth’ (Flannery 1995b:231). There are some 27 genera there, including *Hydromys*, *Leptomys*, *Mallomys*, *Melomys*, *Pogonomys*, *Uromys*, *Rattus* and *Stenomys*, although only a subset of these are present in any one region. Most New Guinea area species are endemic.

Nine murid species are endemic to the Solomons, including two that are extinct. Three species of *Solomys* and one of *Uromys* have evolved into large or very large arboreal rats, which are probably the evolutionary counterparts of the possums of Sahul. However, single



Figure 5.5 *Rattus exulans*, rat

islands in the Solomons seldom have more than two or three species. No rat species were present in Remote Oceania before the advent of humans.

Five commensal rat species have been introduced to Oceania: *Rattus rattus*, *R. exulans*, *R. tanezumi*, *R. norvegicus* and *Mus musculus*. *Rattus rattus*, the black rat, and *Mus musculus*, the mouse were introduced into the Pacific within the past few centuries by European voyagers. The other three species were carried to Oceania in prehistoric times. *R. exulans*, the Pacific rat, is a commensal animal whose original range was in Asia, probably from Bangladesh to Vietnam (Groves 1984). It was carried to Oceania by humans several millenia ago and today is found widely in Melanesia, Polynesia and Micronesia. *R. exulans* has in recent years come to play an important role in tracing the directions of early human settlement of Oceania, especially Remote Oceania. Because it is an introduced animal and because it is common in archaeological sites, it provides sufficient prehistoric and contemporary populations for reliable genetic analysis (Matisoo-Smith and Robins 2004, Matisoo-Smith 2007). *R. rattus* occurs in Lapita sites from the Bismarcks to western Polynesia and was clearly associated with the initial Lapita dispersal into Remote Oceania. It was the only one of the commensal rats to reach Polynesia in ancient times.

Rattus praetor, the spiny rat, considerably larger than *exulans*, is native to New Guinea, where it is widespread north and south of the central ranges as far east as the Sepik-Ramu basin. It also occurs on offshore islands in the Bismarck Archipelago where it appears in archaeological assemblages dated to at least 13,000 years ago (White, Clark and Bedford, 2000) and in the Solomon Islands, where its introduction is probably of similar antiquity. *R. praetor* is now extinct in Remote Oceania but occurs in archaeological sites in Vanuatu and Fiji, though not in Polynesia or Micronesia.

A third commensal species, *Rattus tanezumi*, the Asian house rat, has a narrow distribution in Oceania, being securely attested only in archaeological sites in the Caroline Islands and the northern Marianas, dated to within the last 1,000 years. *R. tanezumi* is native to South Asia and Southeast Asia and its Oceanic distribution is consistent with transport direct from Island Southeast Asia to the Carolines, rather than via Melanesia.

Sources for Oceanic language seldom give precise identifications for rat terms. Glosses tend to be of the order of ‘bush rat’ or simply ‘kind of rat’, glosses which fail to capture genuine taxa in the language. One investigator (Futscher 1959) recorded at least 10 terms for kinds of rat in Tolai but the glosses simply say ‘mouse’.

POc **kasupe*, continuing PEMP **kanzupay*, has reflexes applied to one or more species of the genus *Rattus*, rats living in and around human settlements. Reflexes in Cristobal-Malaitan and Vanuatu languages preserve initial syllable **-a-*. Those in Western Oceanic and Guadalcanal languages and in Western Fijian show initial *u-*. These may represent several independent cases where the first vowel assimilated to the following *u*. However, the assimilation is so widespread it is reasonable to reconstruct a POc doublet, **kusupe*.

PCEMP **kanzupay* ‘rat’ (Blust 1993)

POc **kasupe*, **kusupe* ‘rat taxon, probably *Rattus exulans* and possibly other small commensal sp. or spp.’

Adm:	Drehet	(<i>n</i>) <i>osop</i>	‘marmot’ (sic) (cf. <i>p^wek</i> ‘rat’)
Adm:	Seimat	<i>usuh</i>	‘k.o. rat’
NNG:	Malai	<i>uzuv</i>	‘rat’
NNG:	Mangap	<i>kuzi</i>	‘rat/ mouse’
NNG:	Malasanga	<i>kui</i>	‘rat’
NNG:	Mindiri	<i>kusue</i>	‘rat’
NNG:	Wogeo	<i>kusive</i>	‘rat’
NNG:	Ulau-Suain	<i>isup</i>	‘bandicoot’
PT:	Lala	<i>uduve</i>	‘rat’
PT:	Ouma	<i>ureve</i>	‘rat’
MM:	Tolai	<i>kaupa</i>	‘rat, mouse, <i>Mus browni</i> ’
MM:	Vitu	<i>kuđuve</i> , <i>kuvuđe</i>	‘rat’ (metathesis)
MM:	Bali	<i>kuzuveke</i>	‘rat’ (final <i>-ke</i> unexpected) ³
MM:	Bola	<i>kuruve</i>	‘rat’
MM:	Madak	<i>kisap</i>	‘rat’
MM:	Siar	<i>kusup</i>	‘rat’
MM:	Kandas	<i>kusupu</i>	‘rat’
MM:	Teop	<i>kuho</i>	‘rat’
MM:	Varisi	<i>kuzu</i>	‘rat’
MM:	Ririo	<i>kuj</i>	‘rat’
SES:	W G’canal	<i>yusuve</i>	‘rat’
SES:	Talise	<i>yusuve</i>	‘rat’
SES:	Malango	<i>husuve</i>	‘rat’
SES:	Lau	<i>ʔasufe</i>	‘rat’

³ The Bali term reflects POc †**kusupeq*. On non-Oceanic evidence **-q* was not present in the POc form, and the Bali reflex is a mystery.

SES:	Kwaio	<i>ʔasufe</i>	‘rat’
SES:	’Are’are	<i>ʔasuhe</i>	‘rat’
SES:	Sa’a	<i>ʔasuhe</i>	‘rat’
SES:	Arosi	<i>kasuhe</i>	‘rat’
NCV:	Mota	<i>yasuwe</i>	‘rat’
NCV:	Mwotlap	<i>(na)yhōw</i>	‘rat, <i>Rattus rattus</i> ’
NCV:	Paamese	<i>asue</i>	‘rat’
SV:	N Tanna	<i>kahap</i>	‘mouse, rat’
SV:	Lenakel	<i>kahau</i>	‘rat’
SV:	Kwamera	<i>(i)esuk^w</i>	‘mouse, rat’
Fij:	Wayan	<i>kuḏuve</i>	‘generic for rats and mice’

Reflexes of the root PAN **-labaw* ‘rat’ occur alone or in combination with a preposed CV-formative in various daughter languages, yielding a number of related terms including PAN **kulabaw* and PMP **balabaw* (Blust 2002:107).

As an independent form **labaw* is traceable back to PMP, with Oceanic reflexes from the Te Motu group and, less certainly, the Malakula languages of Vanuatu.

PMP **labaw* ‘rat, mouse’

WMP:	Kagayanen	<i>ambaw</i>	‘mouse, rat’
CMP:	Manggarai	<i>lavo</i>	‘rat’
CMP:	Rotinese	<i>lafo</i>	‘mouse, rat’

POc **la(b,p)(o,u)* ‘rat taxon’

TM:	Äiwoo	<i>lapū</i>	‘rat’ (Wurm 1969:69, Tryon & Hackman 1983:190)
TM:	Natügu	<i>lopu</i>	‘rat’ (Wurm 1969:69)
TM:	Tanibili	<i>no-uvo</i>	(Tryon & Hackman)
Pn:	Pileni	<i>lepū</i>	(probable borrowing from TM)

cf. also the following terms for ‘rat’ from Malakula languages:

NCV:	Neve’ei	<i>ne-labut</i>
NCV:	Nāti	<i>ne-lemput</i>
NCV:	Naman	<i>labēt</i>
NCV:	Nahavaq	<i>lambut</i>

The latter forms exhibit a final *-t* which is unexpected in comparison with PMP **labaw*. Tagbanawa (Kalamian), a Philippines language, has a similar word *laput* ‘rat’ but this is likely to be an accidental resemblance.

PMP **bualabaw* has probable Oceanic reflexes in Admiralty and NNG languages. The expected POc form is **b^walapo* or **p^walapo*, and Bing *palāf* supports the latter. However, the final vowels of the Admiralties forms are unexplained. The Titan and Aua forms also show irregular loss of **-p-*.

PMP **bualabaw* ‘rat, mouse’ (ACD: **balabaw*)

WMP:	Malagasy	<i>vualavu</i>	‘rat’ (Blust 1972a)
WMP:	Ngaju Dayak	<i>belawaw</i>	‘rat’ (Blust 1972a)
WMP:	Uma	<i>flulehu?</i>	‘mouse, rat’ (Tryon 1995, 03.630)
WMP:	Buginese	<i>balawo</i>	‘mouse, rat’

CMP:	Konjo	<i>balaho</i>	‘mouse, rat’ (Tryon 1995, 03.630)
CMP:	Buru	<i>blafe(n)</i>	‘marsupial rat’ (Grimes, pers. comm.)
POc <i>*p^walapo</i> ‘rat taxon’			
Adm:	Titan	<i>buléy</i>	‘rat’ (Blust 1996:43)
Adm:	Wuvulu	<i>balafa(i)</i>	‘rat’ (Blust 1993, 1996:43)
Adm:	Aua	<i>balā</i>	‘rat’ (Blust 1993)
NNG:	Bing	<i>palāf</i>	‘bush rat with very strong teeth’

PAn **kulabaw* ‘rat, mouse’, with reflexes in Taiwan (Paiwan *kulavaw* ‘mouse, rat’, Rukai *kolabaw* ‘rat in the fields’) as well as in MP languages is reconstructed by Blust (2002). A probable Oceanic reflex has been recorded in Bauan Fijian: *kalavo* ‘rat’. Amber (SHWNG) agrees with Bauan in having initial *ka* rather than *ku*, pointing to PEMP **kalabaw*, POc **kalapo*.

PAn **kulabaw* ‘rat, mouse’ (Blust 2002)

PEMP **kalabaw* ‘rat, mouse’

SHWNG: Amber *kalubu* ‘mouse’ (Smits)

POc **kalapo* ‘rat taxon’

Fij: Bauan *kalavo* ‘rat (*Rattus* spp.)’

Two distinct cognate sets are widespread in Polynesia. The terms are simply glossed ‘rat’ in the sources, unless otherwise noted, but the proto-forms must all have referred to *Rattus exulans*.

PPn **kumā* ‘rat’ (POLLEX)

Pn:	Tongan	<i>kumā</i>	
Pn:	Niuean	<i>kumā</i>	
Pn:	E Uvean	<i>kumā</i>	
Pn:	Anutan	<i>kuma</i>	
Pn:	Tikopia	<i>kuma(ri)</i>	(final <i>-ri</i> unexpected)
Pn:	Marquesan	<i>kuma-kuma</i>	

The second set is confined to Nuclear Polynesian languages.

PNPn **kimoa* ‘rat, *R. exulans*’

Pn:	Samoa	<i>?imoa</i>
Pn:	Tuvalu	<i>kimoa</i>
Pn:	Nukuoro	<i>kimoo</i>
Pn:	Ifira-Mele	<i>kimoa</i>
Pn:	Rennellese	<i>kimoa</i>
Pn:	W Uvean	<i>kimoa</i>

Lincoln (2007) points to terms for ‘rat’ in various PT languages from Milne Bay Province that do not correspond regularly to **kimoa* but show more than a passing resemblance. The Milne Bay terms are from unpublished wordlists recorded by Pawley (1969).



Figure 5.6 *Dobsonia moluccensis*, greater bare-backed bat

PT:	Oyaoya	<i>gimau</i>
PT:	Logea	<i>gim^wau</i>
PT:	Tubetube	<i>gim^wau</i>
PT:	Saliba	<i>yim^wau</i>
PT:	Gilagila	<i>gib^wau</i>

The following reconstruction is attributable to Proto Western Oceanic on the basis of cognates in North New Guinea, New Ireland and NW Solomonian.

PWOC **kotu* 'rat'

NNG:	Sio	<i>koto</i>	'rat'
MM:	Tabar	<i>kotu</i>	'rat'
MM:	Tangga	<i>kut</i>	'rat'
MM:	Hoava	<i>kutu</i>	'rat'
MM:	Marovo	<i>kutu</i>	'rat, common type' (<i>kutu vaka</i> 'big rat that eats coconuts') (Hviding)
MM:	Vangunu	<i>kutu</i>	'rat'

2.9 Bats (Order: Chiroptera, Suborders Megachiroptera, Microchiroptera)

Bats form a very large order consisting of two suborders and at least six families (Flannery 1995b). The Megachiroptera include the fruit-sucking bats (flying foxes and fruit bats) and

bats which feed on nectar and pollen. Figure 5.6 shows the greater bare-backed fruit bat, *Dobsonia moluccensis* (aka *D. magna*). This species and others of the genus *Dobsonia* are widespread in New Guinea and Island Melanesia, as far east as the Solomons, as are other members of the family Pteropodidae (fruit-bats). The Microchiroptera include tube-nosed bats, sheath-tail bats, horseshoe bats and leaf-nosed bats, typically insectivorous, although at least one genus preys on small fish (Flannery 1995b:455). Several species of Microchiroptera are recently described, and revision of the genera is ongoing.

Reflexes of PMP **paniki* ‘fruit bat, flying fox, *Pteropus* spp.’ occur in the Philippines and Indonesia, but have not been located in Oceanic languages. POc **b^weka* is a well supported reconstruction. It has reflexes denoting ‘fruit bat’ in most major subgroups of Oceanic, an exception being Papuan Tip. In NCV languages **b^weka* is generally lost but in a few languages the form is continued as the name for the barn owl, *Tyto alba*. For North New Guinea reflexes see under **mali-b^weka* below.

POc **b^weka* ‘flying fox, large fruit bat’

Adm:	Drehet	<i>p^wek</i>	‘rat’
Adm:	Titan	<i>p^we</i>	‘bat, flying fox’
MM:	Bali	<i>beya</i>	‘flying fox’
MM:	Vitu	<i>beya</i>	‘flying fox’
MM:	Nakanai	<i>beka</i>	‘flying fox’
MM:	Meramera	<i>bea</i>	‘flying fox’
MM:	Sursurunga	<i>bek</i>	‘generic, fruit bat, flying fox’
MM:	Patpatar	<i>beka</i>	‘flying fox’
NCV:	Araki	<i>peka</i>	‘ <i>Tyto alba</i> , barn owl’
NCV:	Tangoa	<i>beka</i>	‘ <i>Tyto alba</i> , barn owl’
NCal:	Nemi	<i>b^wek</i>	‘flying fox’
NCal:	Jawe	<i>b^wek</i>	‘bat, flying fox’
Mic:	Kosraean	<i>fak</i>	‘bat’
Mic:	Mokilese	<i>p^wēk</i>	‘bat’
Mic:	Ponapean	<i>p^wēk</i>	‘bat’
Fij:	Wayan	<i>bek^wa</i>	‘bat (generic)’
Fij:	Bauan	<i>beka</i>	‘fruit bat’
Pn:	Niuean	<i>peka</i>	‘flying fox, fruit bat’
Pn:	Tongan	<i>peka</i>	‘bat, flying fox’
Pn:	Rennellese	<i>peka</i>	‘flying fox: formerly important for teeth and food, and for the sport of snaring’
Pn:	Samoan	<i>peʔa</i>	‘flying fox’
Pn:	Tikopia	<i>peka</i>	‘fruit bat, both large and small’
Pn:	Hawaiian	<i>peʔa</i>	‘bat’

A few Admiralties and North New Guinea languages reflect a complex form **mali-b^weka*. The etymology of **mali-* is uncertain but it is most likely a modification of POc **manuk* ‘bird, bat’.

POc **mali-b^weka* ‘flying fox, large fruit bat’

Adm:	Nyindrou	<i>balimek</i>	‘large fruit bat’ (metathesis of two foot-initial consonants)
Adm:	Drehet	<i>pelemik</i>	‘bat/flying fox’
NNG:	Vehes	<i>mebek</i>	‘fruit bat’
NNG:	Mapos Buang	<i>malibək</i>	‘large fruit bat, flying fox’

cf. also:

Adm:	Titan	<i>pálimet</i>	‘flying fox, fruit-eating bat’
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The next reconstruction is also plainly a compound of **mali-* and **boŋi* ‘night’, reflecting the fact that bats are nocturnal. In one of the Motu forms and in Mwotlap a different qualifier has been substituted for the first morpheme, and in the Tarpia reflex that morpheme is missing.

POc **mali-boŋi* ‘flying fox’

SJ:	Tarpia	<i>boni</i>	‘bat’ (Smits and Voorhoeve 1992:244)
NNG:	Tami	<i>malimboŋ</i>	
NNG:	Wab	<i>malboŋ</i>	
NNG:	Bing	<i>malbaŋ-boŋ</i>	‘flying fox (mid size)’
		<i>malboŋ</i>	‘flying fox, fruit bat’
NNG:	Manam	<i>malaboŋ</i>	
PT:	Suau (Dau)	<i>malibon</i>	
PT:	Molima	<i>niboi</i>	(unexpected loss of first syllable)
PT:	Motu	<i>mariboi</i>	‘large fruit bat, flying fox’ (Oram n.d.) (for † <i>maiboi</i>)
		<i>(sisi)boi</i>	‘small bat’ (<i>sisi</i> ‘small’)
PT:	Gabadi	<i>(manu)boŋi</i>	‘flying fox’ (for † <i>maiboni</i> , possibly a folk etymology: <i>manu</i> < <i>*manuk</i> ‘bird’)
MM:	Tiang	<i>məlabiŋ</i>	
MM:	Nalik	<i>məlbuiŋ</i>	
NCV:	Mwotlap	<i>ilb^wōŋ</i>	(1) ‘a small dark bat’, (2) ‘Vanikoro swift’ (unexpected loss of initial nasal)

cf. the following, which are glossed ‘flying fox’ and appear to reflect **mali* + **eba* or **oba*:

Adm:	Mussau	<i>marieba</i>	‘flying fox’ (-r- for †-l-)
PT:	Ouma	<i>maiba</i>	
PT:	Balawaia	<i>maioba</i>	
PT:	Maopa	<i>maopa</i>	
PT:	Hula	<i>maopa</i>	

In many Oceanic languages small insectivorous bats (Microchiroptera) have a separate name from fruit bats. It is uncertain whether this was also the case in POc. In parts of Polynesia reflexes of **peka-peka* are given both to a small bat and to a swift whose behaviour, form and habitat resemble superficially that of insectivorous, cave-dwelling bats. The Fijian languages have cognate reduplicated forms referring only to small cave bats. Reduplication is commonly used to show diminutives in some Oceanic languages (see also vol.3, pp.50–51).

PCP **beka-beka* ‘small insectivorous, cave-dwelling bat’

Fij: Wayan *bek^wa-bek^wa* ‘a small insectivorous cave-dwelling bat’

Fij: Bauan *beka-beka* ‘insect-eating bat’

PPn **peka-peka* (1) ‘small bat’, (2) ‘white-rumped swiftlet’

Pn: Niuean *peka-peka* ‘bird, white-rumped swiftlet, nests in caves’

Pn: Tongan *peke-peka* ‘swallow’

Pn: E Futunan *peka-peka* ‘small bat’

Pn: E Uvean *peka-peka* ‘k.o. small swallow’

Pn: Rennellese *peka-peka* ‘glossy swiftlet’

Pn: Samoan *peʔa-peʔa* ‘white-rumped swiftlet’

Pn: Māori *peka-peka* ‘bat’

Pn: Hawaiian *(ʔō)peʔa-peʔa* ‘bat’

An unrelated Mwotlap term, *il-b^wōŋ* (*b^wōŋ* from POc **boŋi* ‘night’) refers to the same two creatures, a small dark bat and a Vanikoro swift, a bird with wholly dark plumage (A. François, pers. comm.), while Kwamera (SV) has *kiri* ‘flying fox’ and *kiri-kapou* ‘glossy swiftlet’.

3 Introduced terrestrial mammals

3.1 Pigs (genus *Sus*, family Suidae)

Island Southeast Asia is the centre of genetic diversity of the genus *Sus*, containing six of the 10 generally recognised species: *S. verrucosus* (the Javan warty pig), *S. barbatus* (the bearded pig of Malaysia, Sumatra and Borneo with a subspecies in Palawan), *S. celebensis* (the Sulawesi warty pig), *S. cebifrons* (the Visayan warty pig), *S. philippensis* (the Philippines warty pig) and *S. scrofa* (the common wild pig, endemic to Europe, North Africa, parts of Asia and parts of the Indo-Malaysian archipelago). No pig species is native to New Guinea or any part of Oceania.

Most pig species have never been domesticated. The most important exception is *Sus scrofa*, which was domesticated in the Middle East and in China around 10,000 years ago and subsequently introduced to many regions. A wild variety of this species, *Sus scrofa vittatus*, the banded pig, inhabits Sundaland from the Malay Peninsula to Sumatra, Java and Bali. It is also present east of Wallace’s Line on Sumbawa and Lombok, possibly due to human transportation.

Sus celebensis occurs domesticated only in Timor and Roti. Groves (1984) argues that its natural range is Sulawesi and offshore islands, and that its presence on Timor, Roti, Flores, Halmahera (and even more surprisingly, on Simalue, west of Sumatra) is the result of human agency. A similar conclusion, based on genetic evidence, is drawn by Larson et al. (2007). Groves (1984:3) suggests that the wild and domestic pigs of New Guinea are a cross between the banded pig and the Sulawesi warty pig.

Pigs, domesticated and wild, appear to have been part of the Austronesian world since PAN times. A number of terms associated with pigs and pig husbandry can be reconstructed for PAN and PMP. In his *Austronesian Comparative Dictionary* (1995), Blust writes that

Although PAN **beRek* evidently meant ‘domesticated pig’ PAN **babuy* referred to pigs in general, with qualifications where needed.⁴ In other words, the glosses of **babuy* and **beRek* were not perfectly complementary, but partially overlapping. ... Reflexes of both **babuy* and **beRek* are found in Formosan and WMP, but only **babuy* is reflected in CMP and only **beRek* in Oceanic.

The history of the introduction of pigs into Oceania has been a matter of debate. Pig bones occur in early Lapita sites from the Bismarck Archipelago to the Reef Is. in the period 3300–3100 BP. A recent genetic study supports the view that although Lapita pigs reached Melanesia via Indonesia they ultimately stem from Vietnam or nearby parts of mainland Southeast Asia, rather than from Taiwan (Larson et al. 2007), but domestic pig bones dated to 4000 BP have been found in cultural deposits in the Philippines (Piper et al. 2009). Some archaeologists argue that the wild pigs of New Guinea are feral descendants of Lapita pigs. Others hold that pig teeth are present in New Guinea highland assemblages predating Lapita, although it has proved difficult to securely date these finds.

POc **boRok* is continued in all the major subgroups of Near Oceania and in parts of Remote Oceania as far east as western Fiji. However, no reflexes are found in New Caledonia and the Loyalty Is., where pigs have been absent since initial settlement by Lapita peoples, or in eastern Fiji and Polynesia.

PAN **beRek* ‘domesticated pig’ (ACD)

POc **boRok* ‘pig, *Sus scrofa*’

Adm:	Seimat	<i>pou</i>
Adm:	Lou	<i>puo</i>
Adm:	Nyindrou	<i>bou</i>
NNG:	Takia	<i>bor</i>
NNG:	Manam	<i>boro</i>
NNG:	Yabem	<i>bo?</i>
NNG:	Mumeng	<i>b^wok</i>
PT:	Tubetube	<i>buluka</i>
PT:	Kilivila	<i>buluk^wa</i>
PT:	Bwaidoga	<i>buluk^wa</i>
PT:	Gapapaiwa	<i>poro</i>
PT:	Wedau	<i>poro</i>
MM:	Bali	<i>boroko</i>
MM:	Tabar	<i>boro</i>
MM:	Nakanai	<i>bolo</i>
MM:	Tolai	<i>boro(i)</i>
MM:	Simbo	<i>boroyo</i>
SES:	Gela	<i>bolo</i>
SES:	Tolo	<i>bolo</i>

PNCV **boe* ‘pig, male pig’ (final -e unexpected)

NCV:	Mota	<i>p^woe</i>	‘pig, male pig, barrow pig’
NCV:	Kiai	<i>poe</i>	

⁴ PAN **babuy* ‘pig (generic)’, PMP **babuy banua* ‘domesticated pig’, PMP **babuy halas* ‘wild pig’, PMP **babuy lebu* ‘domesticated pig’. PAN **babuy-an* ‘pigpen, pigsty, piggery’ (ACD).

NCV:	Raga	<i>boe</i>
NCV:	Nokuku	<i>poe</i>
Fij:	Wayan	<i>gō</i>

Reflexes of **boRok* in many Solomons languages are irregular. Irregular loss of **R* is exhibited in this term in most Cristobal-Malaitan languages, e.g. Longgu *bo*, Sa'a *pō*, Santa Ana *b^wō*, some Guadalcanal languages, e.g. Ghari *bo*, and many NW Solomonian languages, e.g. Roviana *boko*. North Malaitan languages show unexpected *s* as the medial consonant, as in Fataleka *boso*, suggesting borrowing from Santa Isabel languages, which typically show the same replacement.

POc **boRok* is not retained in Polynesian languages, being replaced by PPn **puaka*. This appears to continue POc **b(o,u)kas(i)*, which has reflexes in PT, NCV and SV. Reflexes of both **boRok* and **b(o,u)kas(i)* persist in PT and NCV. It is not clear whether there was a meaning difference between the two terms.

POc **b(o,u)kas(i)* 'pig'

PT:	Sudest	<i>voyaði</i>	'wild pig that dogs can't kill'
PT:	Dobu	<i>boʔas(a)</i>	'village pig'

PSOc **bukasi* 'pig (generic), and probably by default male pig, boar' (John Lynch, pers. comm.)

NCV:	Mota	<i>puyas</i>	'to rear with food, tame by feeding'
NCV:	Paamese	<i>vuasi</i>	'pig (generic)'
NCV:	Nguna	<i>(na-)p^wokasi</i>	'meat, flesh'
SV:	Lenakel	<i>pukas</i>	'pig'
SV:	Kwamera	<i>pukah</i>	'pig'
SV:	Anejoñ	<i>pikaθ</i>	'pig'

PPn **puaka* 'pig'

Pn:	Tongan	<i>puaka</i>	'pig'
Pn:	Samoa	<i>puaʔa</i>	'pig'
Pn:	Tikopia	<i>puaka</i>	'pig' (archaic)
Pn:	Hawaiian	<i>puaʔa</i>	'pig'

The following are all Polynesian loans.

PT:	Saliba	<i>puaka</i>
PT:	Magori	<i>uaka</i>
PT:	Yoba	<i>uaʔa</i>
NCal:	Nixumwak	<i>puaka</i>
NCal:	Iaai	<i>buaka</i>
Fij:	Bauan	<i>vuaka</i>

Another term, **b^wasa*, may have referred specifically to sows. This term has reflexes in NNG, PT, MM and SES.

POc **b^wasa* 'pig, possibly sow'

NNG:	Bilibil	<i>bas</i>	'pig'
PT:	Ouma	<i>bura</i>	'pig'
MM:	Patpatar	<i>pes</i>	'female pig'

SES:	Gela	<i>baha</i>	‘sow’
SES:	Lau	<i>g^wata</i>	‘sow’
SES:	To’aba’ita	<i>g^wata(k^wala)</i>	‘sow that has had young more than once’ (<i>k^wala</i> ‘bear young’)
SES:	’Are’are	<i>ata</i>	‘sow’ (for † <i>pata</i>)
SES:	Kwara’ae	<i>g^wat</i>	‘pig’ (Tryon & Hackman 1983: 185)
cf. also:			
SES:	Arosi	<i>b^wa-b^wa</i>	‘female (only of pigs)’ (zero for †- <i>t</i>)
SES:	Sa’a	<i>p^wa-p^wa</i>	‘female of an animal; lay eggs’ (zero for †- <i>t</i>)

In NCV there is a widespread cognate set pointing to PNCV **b^wara-b^wara* ‘female pig’.

PNCV **b^warab^wara* ‘female pig’ (Clark 2009)

NCV:	Uripiv	<i>b^wer-p^wer</i>	‘pig (generic)’
NCV:	Lonwolwol	<i>ba-bar</i>	‘female pig, sow’
NCV:	Aore	<i>mbara-mbara</i>	‘sow’
NCV:	Naman	<i>ba-bar</i>	‘pig, esp. sow’
NCV:	Neve’ei	<i>(ne-)b^webar</i>	‘sow’

3.2 Dogs (*Canis* sp.)

Dogs were brought by humans to Island Southeast Asia, Oceania and Australia from mainland SE Asia within the last few millennia. The pre-European dogs of Oceania and Australia did not bark, but rather howled.

PAn and PMP **asu* ‘dog’ is reflected in many languages of Taiwan, the Philippines, western Indonesia, the Lesser Sundas and much of the southern and central Moluccas, but to date is unattested in any Eastern Malayo-Polynesian language. As others (Hudson 1989, Lynch 1991, Donohue 1995) have discovered, names for ‘dog’ are notoriously variable in Oceanic languages. This variability is consonant with a hypothesis, first suggested by Andrew Sharp (1956), that on small remote islands in Oceania the dog lost much of the economic value it had in insular Southeast Asia, became a competitor for food, and was itself eaten to extinction in many locations and then reacquired from areas where it had managed to survive. Lynch (1991:427) suggests that the Polynesians reintroduced the dog to various parts of Island Melanesia in their back-migrations from the Polynesian Triangle, with variants of Polynesian terms for ‘dog’ appearing in Vanuatu, the Reefs and parts of the Solomons. Various Micronesian languages also appear to have borrowed from Polynesia.

It is unclear whether or not POc speakers had dogs. No dog remains have been found in early Western Lapita sites in the Bismarck archipelago. The earliest dog remains associated with the Oceanic dispersal are those found in late or post-Lapita assemblages in the Reef Is., dated to around 2600 BP (R. Green pers. comm.). No POc term for dog can be reconstructed with any confidence. A number of languages of Bougainville reflect a term reconstructable as **kasi*, but we hesitate to associate this term with PAn **asu* because the initial **k-* is unexplained.⁵

⁵ Blust (ACD) does note Ifugao *kahú* ‘dog’ from the northern Philippines, and Tontemboan *ka-asu* ‘canine com-

Proto North Bougainville **kasi* ‘dog’

MM:	Halia (Selau)	<i>kas</i>
MM:	Taiof	<i>kas</i>
MM:	Hahon	<i>kas</i>
MM:	Tinputz	<i>keh</i>
MM:	Teop	<i>kahi</i>

cf. also:

MM:	Solos	<i>kus</i>
MM:	Petats	<i>kus</i>
SES:	Longgu	<i>ʔusu</i>
SES:	Sa’a	<i>ʔusu</i>

Donohue (1995:226) has identified forms resembling **kapuna* that are present in Western Oceanic languages and in various languages of eastern Indonesia, both Austronesian and non-Austronesian. The Austronesian languages include Sangir *kapuna* (Sangiric, WMP), Geser *kafuna* (Seram, CMP) and Mor *auna* (WNG). He argues that ‘this (the presence of this term in eastern Indonesia), and the patterned distribution of the reflexes of **kapuna* in Oceania point to an origin of the form in eastern Indonesia with spread to Oceania, and not the other way round.’

PWOC **kapuna* ‘dog’

NNG:	Sissano (Arop)	<i>aun</i>
NNG:	Uvol	<i>kaune</i>
NNG:	Kaiwa	<i>uvun</i>
MM:	Notsi	<i>kapuna</i>
MM:	Tabar	<i>kapune</i>

Compare also the following which point to a very similar form in PNNG **gavun*:⁶

PNNG **gavun* ‘dog’

NNG:	Tuam	<i>gavun</i>
NNG:	Malai	<i>gavun</i>
NNG:	Kilenge	<i>(na)yaune</i>
NNG:	Lukep (Pono)	<i>gaunu</i>
NNG:	Gedaged	<i>gaun</i>

The following series offers some support for reconstructing PWOC **ka(u,w)ak*, but there is probably onomatopoeic influence.

panion’ from northern Sulawesi, but both languages have corresponding *asu* terms (Ifugao *ahú* ‘dog, hound’, Tontemboan *asu* ‘dog; also used of domesticated animals in general’). The *k*-initial terms are considered unrelated to the Oceanic ones.

⁶ Blust (2002:92) considers that the only serious candidate for a POc term for ‘dog’ is **gaun*, which ‘is evidently onomatopoeic, and possibly a convergent innovation’. As reflexes of **gaun* we assume he had in mind some of the forms assigned here to **kapuna*, **gavun* and possibly **kawak(a)*.

PWOC **ka(u,w)ak* 'dog'

NNG:	Kove	<i>kawa, kauwa</i>
NNG:	Bariai	<i>kaua</i>
PT:	Kilivila	<i>kauk^wa</i>
PT:	Muyuw	<i>awuk^w</i>
MM:	Bali	<i>kauaka</i>
MM:	Bola (Harua)	<i>kaua</i>
MM:	Lavongai	<i>kauek</i>

cf. also:

MM:	Torau	<i>kau-kau</i>	
MM:	Mono-Alu	<i>ʔau-ʔau</i>	
MM:	Roviana	<i>ka-kau(la)</i>	'indigenous dog, gen. reddish brown. Always howls, never barks'
SES:	Gela	<i>kau</i>	
SES:	Birao	<i>kau</i>	
SES:	Tolo	<i>kau</i>	
SES:	Lengo	<i>kau</i>	

The two reflexes in the following set are too close geographically to exclude borrowing, possibly at post-POC dates.

PWOC (?) **paia* 'dog'

NNG:	Mengen (Poeng)	<i>paia</i>
MM:	Nakanai	<i>paia</i>

cf. also:

Adm:	Mussau	<i>paua</i>
Adm:	Seimat	<i>paua</i>
SES:	W G'canal	<i>pai</i>
SES:	Ghari	<i>pai</i>
SES:	Malango	<i>pai</i>

PPn **kuli* 'dog' is well-attested but has no secure non-Polynesian cognates. All apparent cognates in languages of Melanesia and Micronesia are almost certainly borrowings from Polynesian sources. A sample of such borrowed forms, all glossed 'dog', is listed below. Although a term from Mota is included, Codrington and Palmer note in their 1896 dictionary that there were no dogs on Banks Islands at first contact.

NCV:	Mota	<i>kurut</i>
NCV:	Paamese	<i>hul</i>
NCV:	Lewo	<i>kuli</i>
NCV:	Raga	<i>v^wiriu</i>
SV:	Anejoñ	<i>kuri</i>
SV:	Lenakel	<i>kuri</i>
Mic:	Kiribati	<i>kiri</i>
Mic:	Marshallese	<i>kiriw</i>
Mic:	Ponapean	<i>kiti</i>

4 Aquatic mammals

The aquatic mammals of tropical Oceania consist of various cetaceans (whales and dolphins) and the dugong. In Oceanic languages these animals are often classified as kinds of fish (POc **ikan*; cf ch.8, §2).

4.1 Cetaceans

4.1.1 Whales

POc speakers probably occasionally sighted certain species of whales. Few surveys appear to have been done of whale populations in Melanesia but sperm whales, *Physeter macrocephalus*, and a number of smaller whales, in particular pilot whales, *Globicephala melaena*, and orcas or killer whales, *Orcinus orca*, have been reported in New Guinea waters. Pilot whales are more visible, being highly gregarious and occurring in large schools. Large numbers of pilot whales have been reported in Astrolabe Bay, while orcas have been sighted in Kimbe Bay off the north coast of New Britain (website reportings, 2003). Whales were not hunted by Oceanic communities in pre-contact times but when strandings occurred communities made use of the meat and teeth.

Reflexes of **rato* ‘whale’ are well represented in Micronesian languages. Elsewhere probable reflexes are known only in Nyindrou and Wuvulu in the Admiralties. Borrowing cannot be ruled out.

POc (?) **rato* ‘whale’

Adm:	Nyindrou	<i>rak</i>	
Adm:	Wuvulu	<i>xaʔo</i>	
Mic:	Kiribati	<i>ato</i>	
Mic:	Marshallese	<i>rac</i>	
Mic:	Woleaian	<i>zaso</i>	
Mic:	Mokilese	<i>rɔc</i>	‘whale, porpoise, any sea mammal’
Mic:	Ponapean	<i>raç</i>	

There is a widespread tendency in Oceanic languages to refer to whales by terms that otherwise describe the action of blowing something out or spraying or spurting, e.g. Teop *kavuhu* ‘to spray’, *kavu-kavuhu* ‘whale’. POc **puRa-puRas* ‘whale’, which is attested in NNG, PT and SES, is evidently an extension of **puRas* ‘spray water from the mouth’. It has as antecedents PAn **buReS*, PMP **buRah* ‘spray water from the mouth’ (ACD).

POc **puRa-puRas* ‘whale’

NNG:	Lukep (Pono)	<i>puru</i>	(-u by regular assimilation)
NNG:	Bing	<i>fur-fūr</i>	
PT:	Molima	<i>wula-wula</i>	
PT:	Tawala	<i>ula-ulasi</i>	
PT:	Diodio	<i>ula-ula</i>	‘dugong’
PT:	Sudest	<i>ura-urasi</i>	
PT:	Misima	<i>ula-ulas</i>	‘whale (generic)’
SES:	Bugotu	<i>vua-vula</i>	

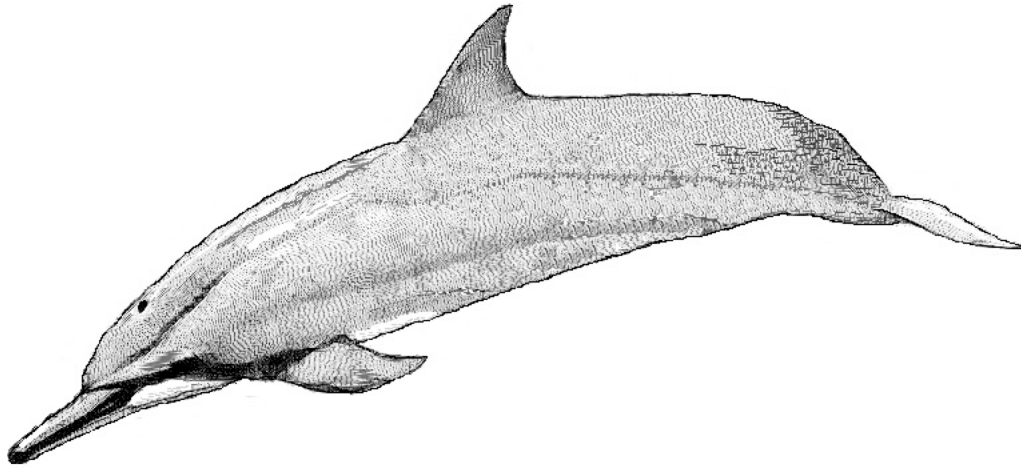


Figure 5.7 *Stenella longirostris*, spinner dolphin

cf. also:

NCV: NE Ambae *vure(gi)*

PPn **taf(o,u)raqa* ‘whale’ is well attested. Possible cognates occur in several non-Polynesian languages of central and southern Vanuatu, but these forms are probably borrowings from the Polynesian Outlier speech communities in these regions.

PPn **taf(o,u)raqa* ‘whale’ (POLLEX)

Pn:	Tongan	<i>tofuaʔa</i>	
Pn:	Niuean	<i>tafuā</i>	
Pn:	E Uvean	<i>tafolāʔa</i>	
Pn:	Pukapukan	<i>tawolā</i>	
Pn:	Rennellese	<i>tahogaʔa</i>	
Pn:	Samoan	<i>tafolā</i>	
Pn:	Tuvalu	<i>tafolā</i>	
Pn:	Kʼmarangi	<i>toholā</i>	
Pn:	Tikopia	<i>taforā</i>	‘cetacean, including whale, porpoise, dolphin’
Pn:	W Futunan	<i>tafora</i>	
Pn:	Hawaiian	<i>koholā</i>	

cf. also:

NCV:	Namakir	<i>taviraʔ</i>	
NCV:	S Efate	<i>tafra</i>	
SV:	Sye	<i>tovura</i>	
SV:	Kwamera	<i>tāfra</i>	
Fij:	Wayan	<i>tavuto</i>	‘generic for all large whales’
Fij:	Bauan	<i>tavuto</i>	‘sperm whale, whose teeth furnish the <i>tabua</i> ’

4.1.2 Dolphins (Delphinidae)

Several species of dolphins, including *Tursiops truncatus*, the bottlenose dolphin, *Stenella longirostris*, the spinner dolphin and *Grampus griseus*, Risso's dolphin, are found in Oceania (Dawbin 1972:270–276). Wordlists and dictionaries of Oceanic languages give only generic terms for 'dolphin'. The synonym 'porpoise' is commonly used in glosses.

POc **ku[r,R]iap*, with final **-ap*, is indicated by reflexes in North New Guinea, Papuan Tip and Meso-Melanesian languages and by *kulef* 'dolphin' in an external witness, Sawei, an Eastern Malayo-Polynesian language of South Halmahera. Southeast Solomonian and Vanuatu reflexes point to PEOc **giRio(p)*. Admiralties and SES languages reflect medial **-r-*, while reflexes from NCV indicate **-R-*. Other reflexes are compatible with either.

PEMP **kuriap* 'dolphin'

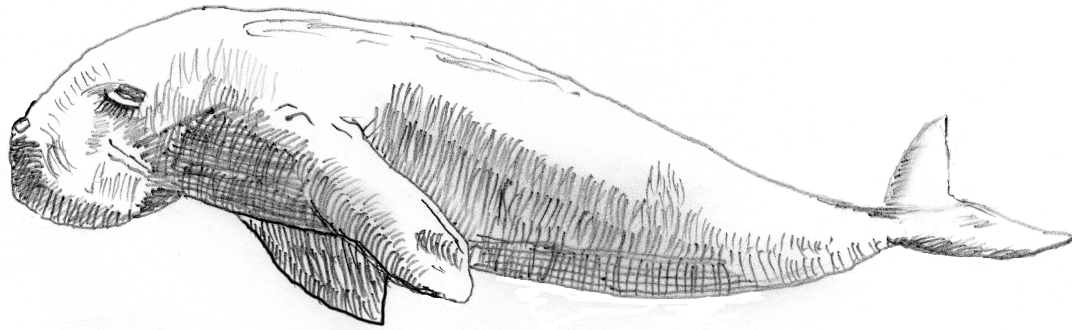
POc **ku(r,R)iap* 'dolphin'

Adm:	Nyindrou	<i>wiri</i>	
Adm:	Lou	<i>wiri</i>	
Adm:	Lenkau	<i>uhi</i>	
Adm:	Loniu	<i>wiʔe</i>	
NNG:	Mangap	<i>kuri</i>	
NNG:	Lukep (Pono)	<i>kuri</i>	
NNG:	Mengen (Maenge)	<i>kule</i>	'dugong'
NNG:	Uvol	<i>ulia</i>	'dugong'
NNG:	Numbami	<i>kuliawa</i>	
NNG:	Mengen (Poeng)	<i>kulia</i>	
PT:	Dobu	<i>kuli-kuliya</i>	
PT:	Tawala	<i>uli-uliyawa</i>	
PT:	Kilivila	<i>k^walivia</i>	
MM:	Tolai	<i>kuriap</i>	
MM:	Ramoaaina	<i>kuriap</i>	
MM:	Siar	<i>ku-kuriap</i>	
SES:	Bugotu	<i>kirio</i>	
SES:	Sa'a	<i>ʔirio</i>	
SES:	Kwaio	<i>kilio</i>	
SES:	Lau	<i>kirio</i>	
SES:	Bauro	<i>kirio</i>	
SES:	Arosi	<i>girio</i>	

PNCV **guRio* 'dolphin (generic)' ⁷

NCV:	Hiw	<i>k^wLi</i>	'dolphin'
NCV:	Lo-Toga	<i>k^wuriə</i>	'dolphin'
NCV:	Mota	<i>kio</i>	'whale'
NCV:	NE Ambae	<i>kio</i>	'dolphin'
NCV:	Raga	<i>gio</i>	'dolphin'
NCV:	Lewo	<i>(le)kio-kio</i>	'dolphin'

⁷ Clark (2009) reconstructs PNCV **gu(R)io*, but two Torres languages, Hiw and Lo-Toga, support inclusion of **-R-* (François In press).

Figure 5.8 *Dugong dugon*, dugong

NCV: Shark Bay	<i>kuo</i>	‘dolphin’
NCV: Namakir	<i>qio-qi</i>	‘dolphin’
NCV: Nguna	<i>giio</i>	‘dolphin’
PMic <i>*kua</i> ‘dolphin’ ⁸		
Mic: Kiribati	<i>te-kua</i>	‘dolphin, whale’
Mic: Marshallese	<i>ke</i>	‘dolphin’
Mic: Woleaian	<i>xiūw</i>	‘dolphin’
Mic: Puluwatese	<i>kūw</i>	‘porpoises, believed to be whales when fully grown’
cf. also:		
SV: Sye	<i>(so)furwav(oh)</i>	‘dolphin’ ⁹
SV: Ura	<i>(so)furwav(os)</i>	‘dolphin’
Fij: Bauan	<i>giō</i>	‘shark (generic)’
Fij: Kadavu	<i>giō</i>	‘shark (generic)’

4.2 Dugong (*Dugong dugon*)

Dugongs are large aquatic mammals, with paddle-like forelimbs, no hindlimbs and a fluked, dolphin-like tail. They graze on beds of seagrass and are found in shallow coastal waters throughout the Indo-Malaysian archipelago, New Guinea and nearby islands including the Admiralties and Bismarcks, and in the Solomons, Vanuatu and New Caledonia, but not in Fiji or places further east (Chambers et al. 1989:1). Dugongs are prized by Pacific Islanders for their flesh, oil and small ivory tusks. Spears and nets are the main methods of capture. In the Trobriands and Manus very strong nets made from pandanus leaves are used while in the Siassi islands nets are made from the bark of a tree (Pyne 1972:276).

There is a well attested PMP etymon, **duyuy* ‘dugong’. While most Oceanic reflexes point to **rui*, evidence that POc continued PMP **duyuy* as **ruyuy* survives in the Tiang

⁸ PMic **kua* is likely to be a continuation of POc **kuRiap*. **R* is usually lost in Micronesian languages. Loss of **R* would have yielded **kuia*, and the reduction to **kuya* and then **kua* would follow a natural path.

⁹ John Lynch (pers. comm.) notes that both the SV forms appear to continue **kuriap*, albeit with an additional initial and final syllable.

(New Ireland) reflex, which preserves the final velar nasal, and in Marovo (New Georgia), which retains a nasal, though this is *m* for expected **-ŋ*.

PMP **duyuy* ‘dugong’ (Blust 2002)

POc **ruyuy* ‘dugong’

Adm: Pak	<i>hū</i>	
Adm: Bipi	<i>xū</i>	
Adm: Nauna	<i>tuy</i>	
Adm: Drehet	<i>kxu</i>	
NNG: Kove	<i>lui</i>	
NNG: Bariai	<i>ruī</i>	
NNG: Gitua	<i>ruī</i>	
NNG: Bing	<i>ruī</i>	
NNG: Malasanga	<i>ruī-ruī</i>	
NNG: Sio	<i>(gu)ruī</i>	
NNG: Lamogai	<i>dū</i>	
NNG: Takia	<i>ruī</i>	
PT: Iduna	<i>lui</i>	
PT: Motu	<i>ruī</i>	
PT: Magori	<i>ruī</i>	
MM: Bulu	<i>ruī</i>	
MM: Tiang	<i>iuy</i>	
MM: Marovo	<i>rumu</i>	(-m- for †-ŋ-)

cf. also:

NNG: Kaiep	<i>kuoi</i>
NNG: Kairiru	<i>qui</i>
MM: Babatana	<i>jui</i>

No reflexes of POc **ruyuy* have been found in Eastern Oceanic languages. For Proto Southeast Solomonian, **paipu* ‘dugong’ can be reconstructed. For Proto North Central Vanuatu **boe-ni-tasi* ‘dolphin’ (literally ‘pig of the sea’) has been reconstructed by Clark (2009).

5 Reptiles

5.1 Marine turtles (Cheloniidae)

At least four large species of marine turtles are common to the Oceanic region: the hawksbill (*Eretmochelys imbricata*), with its beak-like mouth, the green turtle (*Chelonia mydas*), with brown or black carapace, the loggerhead (*Caretta caretta*), with its very large head, and the leatherback (*Dermochelys coriacea*), distinguished from other turtles by its lack of a bony shell, its carapace being covered by thick leathery skin. The much smaller olive ridley (*Lepidochelys olivacea*) spends almost all of its time in the open ocean and is less familiar to Pacific Islanders. Turtles are prized by Oceanic communities for their flesh and fat and (in the case of the hawksbill) for their shells.

As well as having a generic for ‘turtle’, a number of languages have distinct names for all four species and some distinguish male and female turtles, as the following examples show.

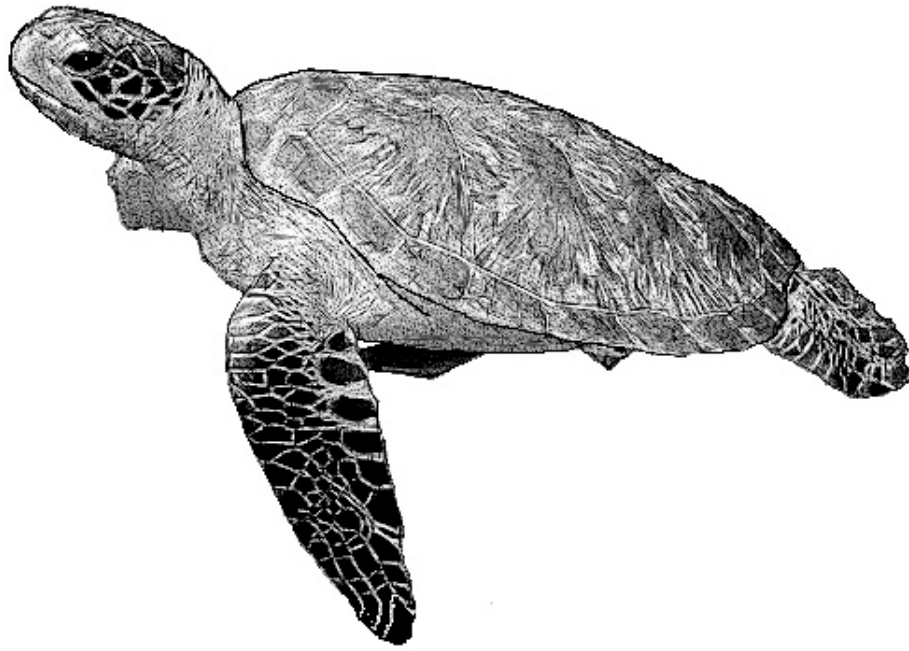


Figure 5.9 *Chelonia mydas*, green turtle

NNG: Lukep (Pono)	<i>pon</i>	'turtle'
	<i>olol</i>	'hawksbill turtle'
	<i>padodo</i>	'green turtle'
	<i>kawadui</i>	'leatherback turtle'
MM: Kia	<i>tege</i>	'turtle generic'
	<i>tege ŋapo</i>	'hawksbill turtle'
	<i>tege mogaha</i>	'green turtle'
	<i>tege babaru</i>	'leatherback turtle'
	<i>tege kakapodoko</i>	'loggerhead turtle'
MM: Marovo	<i>vonu</i>	'turtle (generic)'
	<i>vonu pede</i>	'hawksbill turtle'
	<i>vonu ihana</i>	'green turtle'
	<i>kariatolu</i>	'leatherback turtle'
	<i>kakapodoko</i>	'loggerhead turtle'
SES: Sa'a	<i>honu</i>	'turtle (generic)'
	<i>honu hapa</i>	'hawksbill turtle' (<i>hapa</i> 'turtleshell')
	<i>honu iʔe</i>	'green turtle' (<i>iʔe</i> 'fish')
	<i>kule oŋo</i>	'leatherback turtle' (<i>kule</i> 'shore', <i>oŋo</i> 'mangrove')
SES: Arosi	<i>honu</i>	'turtle (generic)'
	<i>honu hapa</i>	'hawksbill turtle'
	<i>honu hau</i>	'soft-shelled turtle'?
	<i>honu marabona</i>	'large sp. of turtle'
	<i>honu orobiu</i>	'leatherback turtle'

		<i>honu ʔeʔero</i>	‘female turtle’
		<i>honu maraw</i>	‘male turtle’
Mic:	Chuukese	<i>wīn</i>	‘generic for sea turtles’
		<i>māw</i>	‘hawksbill turtle’
		<i>winiççen</i>	‘hawksbill turtle’
		<i>winim^wen</i>	‘green turtle’
		<i>woŋ</i>	‘leatherback turtle’
Fij:	Wayan	<i>ika-bula</i>	‘turtle generic’
		<i>taku</i>	‘hawksbill turtle’
		<i>ika-dū</i>	‘green turtle’
		<i>tosiviwalu</i>	‘leatherback turtle’
		<i>tū-vonu</i>	‘loggerhead turtle’
		<i>bala</i>	‘male turtle’
Pn:	Tikopia	<i>fonu</i>	‘turtle (generic)’
		<i>fonu koroa</i>	‘hawksbill turtle’ <i>koroa</i> ‘goods, treasure’
		<i>fonu tea</i>	‘green turtle’ (<i>tea</i> ‘white, light-coloured’)

Three terms for turtle taxa are attributable to POc. POc **poñu*, continuing a PAn etymon, was clearly the generic term, and is very well supported.

PAn **peñu* ‘turtle’ (ACD)

POc **poñu* ‘turtle (generic)’

Adm:	Mussau	<i>onu</i>	
Adm:	Wuvulu	<i>fonu</i>	‘large hard-shelled sea turtle’
Adm:	Aua	<i>fonu</i>	‘large hard-shelled sea turtle’
Adm:	Lou	<i>puon</i>	‘sea turtle’
Adm:	Loniu	<i>poñ</i>	‘sea turtle’
NNG:	Manam	<i>poŋ</i>	‘turtle’
NNG:	Lukep (Pono)	<i>pon</i>	‘turtle, <i>Dermochelidae</i> ’
NNG:	Gedaged	<i>fon</i>	‘leatherback turtle’
NNG:	Kove	<i>ponu</i>	‘turtle’
PT:	Tubetube	<i>wonu</i>	‘turtle’
PT:	Kilivila	<i>wonu</i>	‘turtle’
MM:	Tigak	<i>un</i>	‘turtle’
MM:	Kara (East)	<i>fun</i>	‘turtle’
MM:	Nalik	<i>fun</i>	‘turtle’
MM:	Tabar	<i>vo</i>	‘turtle’
MM:	Lihir	<i>on</i>	‘turtle’
MM:	Sursurunga	<i>hun</i>	‘turtle’
MM:	Tangga	<i>fon</i>	‘turtle’
MM:	Patpatar	<i>hun</i>	‘turtle’
MM:	Nehan	<i>won</i>	‘turtle’
MM:	Marovo	<i>vonu</i>	‘turtle (generic)’
MM:	Taiof	<i>fon</i>	‘turtle’
MM:	Banoni	<i>yom</i>	‘turtle’

MM:	Babatana	<i>vunu</i>	‘turtle’
MM:	Lungga	<i>voñu</i>	‘turtle’
SES:	Bugotu	<i>voñu</i>	‘turtle’
SES:	Gela	<i>vonu</i>	‘turtle (generic) for hawksbill and green turtle’ (Foale)
SES:	Lau	<i>fonu</i>	‘turtle’
SES:	Kwaio	<i>fonu</i>	‘turtle’
SES:	Sa’a	<i>honu</i>	‘turtle’
SES:	Arosi	<i>honu</i>	‘turtle’
NCal:	Jawe	<i>p^wen</i>	‘turtle’
NCal:	Nemi	<i>p^wen</i>	‘turtle’
NCal:	Xârâcùù	<i>p^wê</i>	‘turtle’
Mic:	Kiribati	<i>on</i>	‘turtle’
Mic:	Chuukese	<i>woŋ</i>	‘leatherback turtle’
Mic:	Carolinian	<i>wōŋ</i>	‘turtle’
Mic:	Woleaian	<i>woŋ</i>	‘turtle’
Mic:	Ulithian	<i>wōl</i>	‘turtle’
Fij:	Bauan	<i>vonu</i>	‘turtle (generic)’
Fij:	Wayan	<i>(tu)vonu</i>	‘loggerhead turtle’
Pn:	Tongan	<i>fonu</i>	‘turtle (generic)’
Pn:	Niuean	<i>fonu</i>	‘turtle’
Pn:	Rennellese	<i>honu</i>	‘green turtle’
Pn:	E Futunan	<i>fonu</i>	‘turtle’
Pn:	Tikopia	<i>fonu</i>	‘turtle (generic)’
Pn:	Hawaiian	<i>honu</i>	‘turtle’

The shell of the hawksbill turtle is prized, being used to make ornaments like earrings and bracelets as well as bonito hook tips and cutting tools. In Tonga and E. Futuna this turtle is called *fonu koloa*, in Tikopia *fonu koroa*, the term for ‘property, treasure’ being used to identify the turtle with valuable shell.

A term for the hawksbill turtle, **keRaŋ*, is well supported. In Oceanic languages, the beaked profile of the hawksbill turtle is identified with that of a parrot rather than a hawk. In Lou (Admiralties), the same term refers to both the turtle and a red parrot. In Māori the term survives only for the parrot. (For discussion of the atypical /e/ vowel, see Blust 1983-84:8–10). All the Admiralties terms have problematic reflexes of **R* and all show vowel metathesis.

PCEMP **keRaŋ* ‘hawksbill turtle’ (Blust 2002)

POc **keRaŋ* ‘hawksbill turtle, *Eretmochelys imbricata*’

Adm:	Lou	<i>kareŋ</i>	‘hawksbill turtle; red parrot’
Adm:	Lenkau	<i>kareŋ</i>	‘hawksbill turtle’
Adm:	Pak	<i>kareŋ</i>	‘hawksbill turtle’
Adm:	Titan	<i>karéŋ</i>	‘parrot turtle’
Adm:	Andra	<i>kareŋ</i>	‘hawksbill turtle’
PT:	Motu	<i>era</i>	‘turtle, shell turtle’
Mic:	Kiribati	<i>(tab^wa)kea</i>	‘parrotbill turtle, brilliant shell’

Mic:	Ponapean	(sap ^w a)ke	‘hawksbill turtle’
PPn	*kea ‘hawksbill turtle’		
Pn:	Pukapukan	kea	‘k.o. turtle’
Pn:	Nanumea	kea	‘a small turtle’
Pn:	Rennellese	kea	‘qualifier for small turtles’
Pn:	Māori	kea	‘parrot sp.’
Pn:	Hawaiian	?ea	‘hawksbill turtle; also term for its shell’

The green turtle is the most abundant and widespread turtle of tropical Oceania and the one most valued for food. It may weigh up to 200 kg, with carapace length around 150 cm. A POc term is reconstructable but reflexes have been found only in a few North New Guinea and Micronesian languages.

POc *manak(V) ‘green turtle, *Chelonia mydas*’

NNG:	Takia	manak	‘green turtle’
NNG:	Gedaged	manak	‘green turtle’
Mic:	Carolinian	m ^w ēl	‘turtle with thin shell, good for eating’
Mic:	Chuukese	(wini)m ^w ən	‘green turtle, eaten’
Mic:	Puluwatese	m ^w ol	‘green turtle, commonly caught and distributed to entire island’

The leatherback turtle, *Dermochelys coriacea*, is the largest turtle in the world with an average carapace length of two metres and average weight of around 360 kg. It nests widely along the north coast of New Guinea, Manus, New Britain and Bougainville, but always in very low densities. It is generally not favoured for eating because of its very oily and smelly meat (Mueller 1985:195). No widespread cognate set has been found.

5.2 Crocodiles (Crocodylidae)

The archaeologist Simon Best has published a comprehensive review of the distribution of crocodiles in the Pacific (Best 1988). Two species occur in Melanesia: *Crocodylus porosus*, the estuarine or saltwater crocodile and *C. novaeguineae*. The latter is found in freshwater swamps and lakes in lowland New Guinea. The normal (breeding) range of *C. porosus* extends from south-west India to the Solomons, and from the Tropic of Capricorn in Australia to the Philippines. The easternmost limit for breeding populations is the Santa Cruz group. Individual animals are capable of very long journeys, over 1000 km, and have been reliably recorded in northern Vanuatu, Fiji and Kiribati, but these occasional occurrences do not represent an extension of their breeding range.

POc *puqaya ‘crocodile’ continues PMP *buqaya and, probably, PAn *buqaya.¹⁰ Reflexes of *puqaya are found widely in languages of the Bismarck Archipelago, New Guinea

¹⁰ The only reflex in a Formosan language is Puyuma buaya ‘shark’. Blust (ACD) writes that there are at least three pieces of evidence that *buqaya meant ‘crocodile’ not only in PMP, but also in PAn, in spite of the fact that the Formosan Puyuma reflex is glossed ‘shark’. These are (1) that a general term for shark, PAn *qiSu, is already available, (2) outside Taiwan reflexes of *buqaya invariably carry the primary sense ‘crocodile’, (3) crocodiles were earlier present in at least the southern portion of Taiwan, but disappeared before the historical period. Under these circumstances the application of the name of a dangerous reptilian aquatic predator to its functional equivalent in the world of fishes is not surprising.



Figure 5.10 *Crocodylus porosus*, saltwater crocodile

and the main Solomons group, i.e. where crocodiles are common, and are also present in a few languages of Vanuatu. No reflexes have been recorded in Micronesian or Central Pacific languages.

PAn **buqaya* ‘crocodile’ (ACD)

POc **puqaya* ‘crocodile’

Adm:	Mussau	<i>ua</i>
Adm:	Nyindrou	<i>buwa</i>
Adm:	Lou	<i>pua</i>
Adm:	Aua	<i>fuara</i>
NNG:	Kilenge	<i>na-pua</i>
NNG:	Malasanga	<i>pua</i>
NNG:	Roinji	<i>puyaia</i>
NNG:	Adzera	<i>fugai</i>
PT:	Arifama	<i>uaya</i>
PT:	Dobu	<i>uaya</i>
PT:	Hula	<i>vuya</i>
PT:	Motu	<i>huala</i>
MM:	Vitu	<i>vuya</i>
MM:	Lavongai	<i>uaia</i>
MM:	Patpatar	<i>huaia</i>
MM:	Petats	<i>hua</i>
MM:	Marovo	<i>vua</i>
SES:	Gela	<i>vua</i>
SES:	Lau	<i>fuasa</i>
SES:	’Are’are	<i>huara</i>
SES:	Sa’a	<i>huasa</i>
NCV:	Mota	<i>via</i>
NCV:	Mwotlap	<i>ne-ve</i>

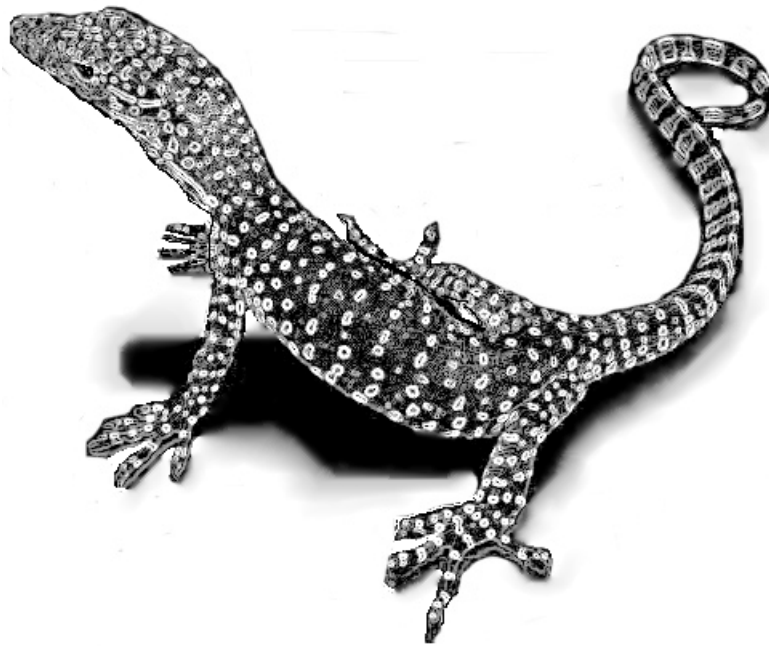


Figure 5.11 *Varanus indicus*, water monitor

5.3 Lizards

5.3.1 Introduction

Lizards are discussed here under the following headings: monitors (§5.3.2), iguanas (§5.3.3), geckos (§5.3.4), skinks (§5.3.5) and indeterminate (§5.3.6), but there is frequent transfer of name within cognate sets from one family to another. Monitor lizards and iguanas belong to different families, although these names are used interchangeably in some wordlists. The Australian goanna belongs with the monitor lizards of Indonesia, New Guinea and the western Pacific. The iguana is of South American origin, and is found in the Pacific today only in the Galapagos Islands, Fiji, Tonga, Wallis and Futuna. In many sources the gloss ‘iguana’ is incorrectly applied to monitor lizards.

5.3.2 Monitors (Varanidae)

Nearly a score of different species of monitors are to be found in the Indo-Pacific region. The best known, because of its great size, is the komodo monitor, a species confined to the Lesser Sundas. The most widespread species in Oceania is *Varanus indicus*, a water monitor, valued as an important food source. Its range extends from Sulawesi through to the Aru and Kei Islands, the New Guinea land mass including the Schouten Islands, the D’Entrecasteaux and Trobriand Islands, New Britain, New Ireland, the Admiralties, the Solomons and northwards to the Carolines, Marianas and Marshalls (Loveridge 1946:60–64, de Rooij 1970:149). Water monitors can grow to over two metres in length, with the tail about one and a half times as long as the head and body. They are excellent swimmers, and have been seen swimming far out to sea.

De Rooij lists five other *Varanus* species in New Guinea (*V. salvadorii*, *V. kalabeck*, *V. gouldi*, *V. prasinus*, *V. kordensis*), but none are found outside the main island except for the

last-named which is found also on Aru. The fact that Arosi has two terms for monitor lizard (incorrectly glossed ‘iguana’ by Fox), *haha*, ‘the larger’, *ʔaraʔu*, ‘the smaller’, may indicate sub-species or a distinction based on sex or age. The skin of the larger monitors is used in New Guinea to cover the end of hourglass drums. The POc term **ka(r;l)(i,u)pa(s)* probably referred to large monitor lizards.

POc **ka(r;l)(i,u)pa(s)* ‘large monitor lizard, *Varanus indicus* and possibly other species’

PT:	Muyuw	<i>kalevas</i>	‘tree goanna, big lizard’
PT:	Motu	<i>ariha</i>	‘large lizard, iguana’ (= monitor) (<i>r</i> for <i>*l</i> unexpected)
SES:	Tolo	<i>kolahe</i>	‘k.o. lizard’ (vowel metathesis)
SES:	Lau	<i>kurafe</i>	‘k.o. large lizard with smooth shining body’ (vowel metathesis)

PMic **kalufa* ‘monitor lizard’

Mic:	Chuukese	<i>konuf</i>	‘ <i>Varanus indicus</i> , monitor lizard’
Mic:	Mortlockese	<i>kaluf</i>	‘lizard’
Mic:	Puluwatese	<i>kólūf</i>	‘giant lizard’
Mic:	Satawalese	<i>kaluf</i>	‘lizard’
Mic:	Carolinian	<i>xalūf</i>	‘black and green forest lizard: gecko’
Mic:	Woleaian	<i>xariifa</i>	‘k.o. big lizard’

cf. also:

SES:	To’aba’ita	<i>g^walu(aʔa)</i>	‘green-blooded skink, <i>Prasinohaema virens</i> ’
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There is a second, more weakly supported POc reconstruction, **wak(i,e)* ‘k.o. lizard, possibly monitor lizard’. It may be a contraction of PMP **bayawak* ‘monitor lizard’ (Blust 2002).

POc **wak(i,e)* ‘k.o. lizard, possibly a monitor’

Adm:	Lou	<i>wak</i>	‘monitor lizard, <i>Varanus</i> sp.’
PT:	Minaveha	<i>wake(neta)</i>	‘lizard, rough-skinned’
PT:	Dobu	<i>waki-waki</i>	‘small gecko’
		<i>waki(balu)</i>	‘large gecko’
SES:	’Are’are	<i>weʔe</i>	‘k.o. big lizard that eats the inside of the <i>nari</i> nut’

Reflexes of the next reconstruction, POc **(k,g)uma*, form a compound in many PT languages with reflexes of POc **ka(r,R)ak* ‘creep, crawl’.

POc **(k,g)uma* ‘monitor lizard’

PPT **(k,g)uma-kara* ‘monitor lizard’

PT:	Ubir	<i>umar</i>	‘lizard, general term’
PT:	Gapapaiwa	<i>kuma-kara</i>	‘lizard (monitor type?); the skin of this lizard is used for drum heads’
PT:	Saliba	<i>kuma-kala</i>	‘k.o. lizard’
PT:	Minaveha	<i>kuma-kana</i>	‘lizard which lives near ocean’
		<i>um-ana</i>	‘larger lizards, speckled or striped, with smooth skin’

PT:	Dobu	<i>goma-ʔara</i>	‘monitor lizard’
PT:	Wedau	<i>umara</i>	‘k.o. lizard’
PT:	Tawala	<i>um^wala</i>	‘iguana, large black lizard’
PT:	Iduna	<i>uma-ʔala</i>	‘goanna; goanna skin of drum’
PT:	Galea	<i>guma-ʔala</i>	‘monitor lizard’
PT:	Molima	<i>goma-ʔala</i>	‘monitor lizard’
MM:	Tolai	<i>gom</i>	‘k.o. small lizard’
Mic:	Woleaian	<i>xum^wa(ʃere)</i>	‘k.o. small lizard’ (ʃere ‘gruel’)

PWOc **paRia* ‘k.o. big lizard’

NNG:	Manam	<i>paria</i>	‘k.o. big lizard’
NNG:	Bariai	<i>paria</i>	‘lizard (generic)’
NNG:	Kove	<i>pahia</i>	‘monitor lizard’
NNG:	Sengseng	<i>a-pahiya</i>	‘monitor lizard’
NNG:	Lukep (Pono)	<i>pari</i>	‘large ground lizard’
NNG:	Gedaged	<i>paliu</i>	‘k.o. lizard, edible, skin used as drum head. Gets to be seven feet long’
PT:	Motu	<i>aria</i>	‘lizard (generic); monitor lizard’ (for † <i>haria</i>)
MM:	Roviana	<i>vari(lazu)</i>	‘k.o. lizard’

cf. also:

MM:	Nakanai	<i>vareki</i>	‘monitor lizard, skin used for drum-head’
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There is a well supported Proto Admiralties reconstruction for monitor lizard.

PAdm **watiRi* ‘monitor lizard, *Varanus* spp.’

Adm:	Wuvulu	<i>waʔi</i>	
Adm:	Seimat	<i>wat</i>	
Adm:	Penchal	<i>wati</i>	
Adm:	Nali	<i>wariy</i>	
Adm:	Lele	<i>watiy</i>	
Adm:	Titan	<i>wati</i>	
Adm:	Loniu	<i>wati</i>	‘lizard’
Adm:	Bipi	<i>wati</i>	

5.3.3 Iguanas (Iguanidae)

True iguanas, in contrast to monitor lizards, would not have been known to speakers of POc. Iguanas (*Brachylophus* spp.) are present in the Oceanic region only in Fiji, Tonga, Wallis and Futuna. They are of South American origin and probably arrived in the central Pacific on floating vegetation. They are diurnal and strongly arboreal in behaviour. A Proto Central Pacific name for ‘iguana’, **vokai*, is reconstructable from cognates in Fijian and Polynesian languages. No non-CP cognates have been recorded. In Rennellese the reflex of **vokai* is applied to monitor lizards. The Tongan term identified in the dictionary as ‘chameleon’ probably refers to a lizard with chameleon-like ability to change colour; true chameleons are natives of Africa. Paddy Ryan reports that *Brachylophus vitiensis*, the crested iguana, has the

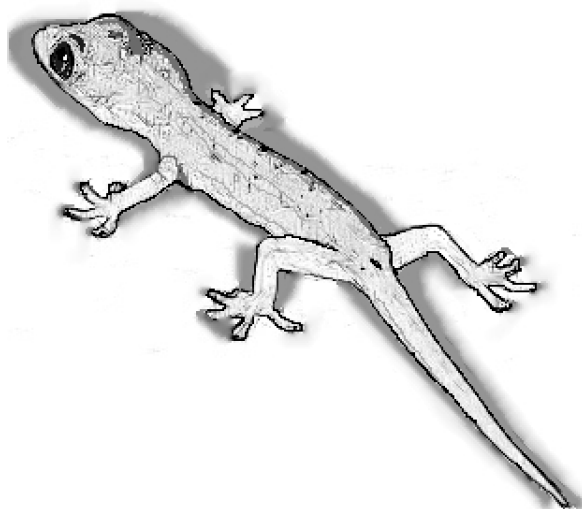


Figure 5.12 *Hemidactylus frenatus*, common house gecko

ability to change colour when frightened or angry and will turn a very dark green, almost black, within five minutes (Ryan 1988:106).

PCP **vokai* ‘k.o. lizard’

Fij:	Bauan	<i>vokai</i>	‘banded iguana (<i>Brachylophus fasciatus</i>) and crested iguana (<i>B. vitiensis</i>)
Fij:	Wayan	<i>vokai</i>	‘crested iguana’
Pn:	Tongan	<i>fokai</i>	‘chameleon’
Pn:	Rennellese	<i>hokai</i>	‘general name for monitor lizards, <i>Varanus indicus</i> ’

cf. also:

NCV:	Tamambo	<i>vohare</i>	‘k.o. lizard’
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5.3.4 Geckos (Gekkonidae)

Geckos are widely distributed across mainland Southeast Asia, Indonesia and the tropical Pacific. They are one of the few reptiles with voices; they make small chirruping noises. They are mostly nocturnal, and many species frequent buildings, although others are forest dwellers. Most are less than 15cm long, and, in common with skinks, have the ability to discard their tails when threatened. They are generally welcomed by households, both for their efforts in keeping down moths, mosquitos, cockroaches and other household pests, and because they are widely regarded as good omens (Loveridge 1946:73).

A number of Western Malayo-Polynesian terms for gecko are onomatopoeic, typically reflexes of PMP **tektek*. Although there are numerous gecko species throughout the Oceanic region, only one term which might be considered a reflex of PMP **tektek* has been noted.

PMP **tektek* ‘gecko, house lizard (onom.)’ (doublet **cekcek*) (ACD)

POc **tok* ‘gecko’

NNG:	Hote	(<i>kamu</i>) <i>tok</i>	‘small gecko, found on the wall’
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We have reconstructed POc **bili* ‘k.o. lizard’, which may be an irregular reflex of a PAN term, **bulilik* ‘lizard sp.’ (Blust 2002), but on present evidence the connection is uncertain. Its reflexes in Polynesian languages carry two meanings, ‘gecko’ (or sometimes ‘lizard (generic)’) and ‘adhere to’, pointing to a lizard name that reflects its character.

Some of the Polynesian reflexes may be compounded with the generic term for lizard, PPn **moko*, from POc **mo(g,k)o* ‘k.o. snake’ (see §5.4.1).

POc **bili* ‘k.o. lizard’

MM: Tolai *bil-bil* ‘k.o. lizard’

PPn **pili* ‘gecko; adhere to’ (POLLEX)

Pn: Tongan *pili* ‘k.o. bluish lizard’

Pn: E Futunan *pili(moko)* ‘gecko’

Pn: Pukapukan *(ŋō)pili* ‘gecko’

Pn: Samoan *pili* ‘lizard’

Pn: Takuu *(moko)pili* ‘small house lizard’

cf. also:

Pn: Tikopia *(moko)pili* ‘gecko’ (for †*piri*)

5.3.5 Skinks (Scincidae)

Most skinks are slim lizards capable of moving at high speed, although the family includes the more heavily built blue-tongue lizards. Skinks usually emerge during the day to feed and bask in the sun. The New Guinea blue-tongue skink, *Tiliqua gigas*, is widely distributed across eastern Indonesia, the New Guinea mainland, the Admiralty islands and Bismarck Archipelago (<http://www.anapsid.org/bluetong.html>). Various *Emoia* species are widely distributed through New Guinea and the Pacific. Contemporary languages often distinguish a number of skink taxa but no POc reconstructions that refer specifically to skinks are supported. However, John Lynch (pers. comm.) has proposed a reconstruction for Proto Southern Oceanic, based on cognates in NCV and New Caledonia, and there is evidence for a second term attributable to Proto Eastern Oceanic.

PSOc **gala* ‘green lizard, *Emoia* sp.’ (John Lynch, pers. comm.)

NCV: Mota *kala* ‘small blue lizard’

NCV: Dorig *kal* ‘green lizard’

NCV: Raga *yala* ‘lizard, probably green skink, *Emoia sanfordi*’

NCV: Tamambo *kala* ‘small green lizard, about 30 cm long, generally reviled.’

NCV: NE Ambae *kala* ‘shiny green lizard w. long tail, grows to about 20 cm, lives on coconut palms’

NCV: Lonwolwol *gal* ‘green lizard’

NCV: Paamese (South) *a-kal* ‘green lizard, *Emoia sanfordi*’

NCal: Nemi *gēna* ‘lizard (generic)’

The presence of **kali* in the following reconstruction raises the question as to whether this is an echo of the old *qali-/kali-* prefix that in pre-Oceanic times evidently meant something like ‘Warning. Take care!’ (See ch. 7 for detailed discussion.) Although the evidence is that

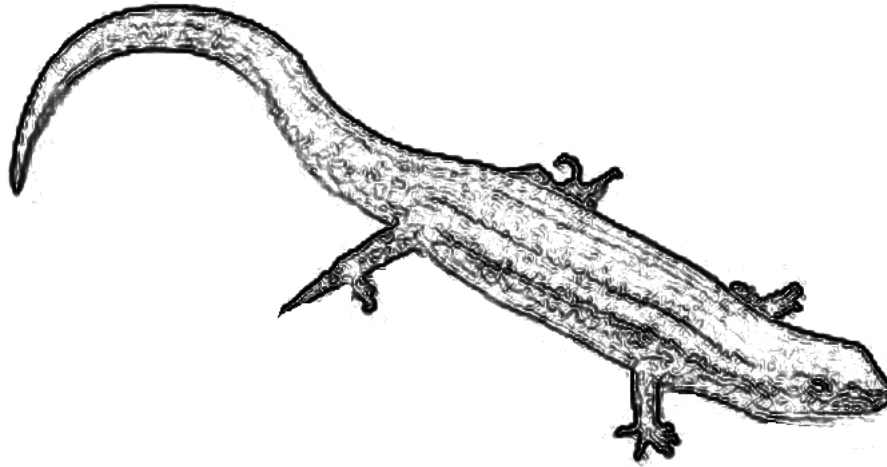


Figure 5.13 Skink

the morpheme was no longer productive in Oceanic languages, an association of danger with a kind of iridescent lizard persists, at least in Tamambo (NCV) and Tikopia (Pn). Jauncey (pers. comm.) notes that in Tamambo they are generally reviled, people shuddering at the sight of them. Firth (1967:233) observes that Tikopia *atua*, which applies primarily to a supernatural entity, is extended as a category name to any natural species which should not be eaten. Among the latter he includes iridescent lizards.

PEOc **kalis(i,u)* 'k.o. skink'

SES: Owa *ga-garisu* 'a brown skink'

PPn **kalisi* 'skink, k.o. lizard' (POLLEX)

Pn: Tongan *kalihe-lihe* 'k.o. lizard'

Pn: Rennellese *kagisi* 'skink (*Emoia cyanura*)'

Pn: Nanumea *kalihi* 'skink'

Pn: K'marangi *galiha* 'skink'

Pn: Tikopia *kali-lisi* 'green lizard, small, iridescent'

5.3.6 Indeterminate kinds of lizards

There is a weakly supported reconstruction based on an imperfect agreement between South-east Solomonic languages and Tolai.

POc **kuk(o,u)* 'k.o. lizard'

MM: Tolai *kuku* 'lizard (generic) name' (*kuku alira* 'small lizard w bronze tail' (also 'green'))

SES: 'Are'are *ʔuʔo* 'small lizard, green and gold'

SES: Sa'a *uʔo* 'house lizard, green and gold; first element in several lizard names'

A second weakly supported reconstruction rests on putative cognates in Mussau, Kokota and N Tanna.

POc **kapoRu* ‘k.o. lizard’

Adm:	Mussau	<i>kapou</i>	‘monitor lizard, <i>Varanus</i> sp.’
MM:	Kokota	<i>kopro</i>	‘gecko’
SV:	N Tanna	<i>kap^wer</i>	‘lizard’ (- <i>r</i> for †∅) (Tryon 1995)

cf. also:

SHWNG:	Serui-Laut	<i>kafei</i>	‘house lizard’ (Smits 1992:239)
PT:	Molima	<i>kekepa</i>	‘green tree skink’
MM:	Nakanai	<i>kavega</i>	‘lizard’
MM:	Tolai	<i>keveu</i>	‘k.o. iguana’ (monitor)

5.4 Snakes (sub-order Serpentes)

5.4.1 Land snakes

Around 100 species of land snakes occur in New Guinea, the Bismarck Archipelago and the Solomon Islands. They include pythons and boas (family Boidae), both of which constrict their prey, and a range of tree snakes and ground-dwelling snakes, some of which are highly venomous. The best known include the Papuan taipan, *Oxyuranus scutellatus*, the Papuan black snake, *Pseudechis papuanus*, and the death adder, *Acanthopis antarcticus*.

Only two species of snake have been reported for Vanuatu: the Flowerpot Snake, *Typhlops braminus* of Efate and the Pacific Boa, *Candoia bibroni*, also with restricted distribution (Medway and Marshall, quoted in Walsh et al. 2000:248). Fiji has two terrestrial snakes, the Pacific boa and the rare *Ogmodon vitianus*, the latter found only in Fiji (Ryan 1988:111–114, Morrison 2003:90). In Polynesia land snakes are found only in Samoa, while the only land snake reported for Micronesia is the miniature blind snake found on Chuuk (Davis 1999:188). For PMP **nipay* ‘snake’ only a single Oceanic reflex has been located.

PMP **nipay* ‘snake’ (ACD)

POc **nipe* ‘snake’

MM:	Mono-Alu	<i>nihe</i>	‘snake’
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POc **m^wata* is the most widely reflected generic for ‘snake’ in Oceanic languages. It has no known non-Oceanic cognates, raising the possibility that this term entered Proto Oceanic from a non-Austronesian source.

POc **m^wata* ‘snake (generic)’ (Ross 1988)

Adm:	Wuvulu	<i>waʔa</i>
Adm:	Aua	<i>waʔa</i>
Adm:	Loniu	<i>m^wat</i>
Adm:	Nauna	<i>m^wat</i>
Adm:	Bipi	<i>m^wak</i>
SJ:	Ormu	<i>mata-mata</i>
SJ:	Sobei	<i>matu</i>
NNG:	Yabem	<i>mɔaʔ</i>
NNG:	Manam	<i>moata</i>

NNG:	Gedaged	<i>mot</i>	‘collective term for snakes and certain kinds of worms’
NNG:	Kove	<i>mota</i>	
NNG:	Malasanga	<i>mota</i>	
NNG:	S Watut	<i>m^war</i>	
PT:	Are	<i>mota</i>	
PT:	Tawala	<i>mota</i>	
PT:	Molima	<i>m^wata</i>	
PT:	Tubetube	<i>m^wata</i>	
PT:	Sudest	<i>m^wata</i>	
MM:	Bola	<i>mata</i>	
MM:	Bali	<i>(gu)mata</i>	
MM:	Tigak	<i>m^wata</i>	
SES:	Bugotu	<i>umata</i>	
SES:	Gela	<i>umata</i>	
SES:	Longgu	<i>m^wa</i>	
SES:	Lau	<i>wa</i>	
SES:	Kwaio	<i>wā</i>	‘snake; various kinds of worms; other snake-like creatures’
SES:	Sa’a	<i>m^wā</i>	
SES:	Arosi	<i>m^wā</i>	
NCV:	Mota	<i>m^wata</i>	
NCV:	Mwotlap	<i>na-m^wat</i>	
NCV:	S Efate	<i>m^wat</i>	
SV:	Lenakel	<i>m^wati(kalo)</i>	‘worm’
Mic:	Kiribati	<i>m^wata</i>	‘worm’
Mic:	Woleaian	<i>m^wata</i>	‘worm’
Fij:	Wayan	<i>ŋ^wata</i>	
Fij:	Bauan	<i>ŋata</i>	‘snake (generic)’
Pn:	Tongan	<i>ŋata</i>	‘snake’ (There are no snakes in Tonga, but Tongans know snakes exist in Fiji and Samoa.)
Pn:	Niuean	<i>ŋata</i>	‘snake’ (Refers only to land snakes, even though there are none on Niue.)
Pn:	Samoaan	<i>ŋata</i>	
Pn:	Tokelauan	<i>ŋata</i>	

The gloss for a third POC reconstruction, **mo(g,k)o* ‘k.o. snake’, is supported by reflexes in three Meso-Melanesian languages and one Southeast Solomonic language. In Central Pacific languages the cognate form is applied to lizards in general.

POC **mo(g,k)o* ‘k.o. snake’

MM:	Laghu	<i>mogo</i>	‘snake’
MM:	Blablanga	<i>mogo</i>	‘snake’
MM:	Maringe	<i>mogo</i>	‘snake (generic)’
SES:	Gela	<i>mogo</i>	‘k.o. inert black snake’
Fij:	Wayan	<i>moko</i>	‘lizard (generic)’

Fij:	Bauan	<i>moko</i>	‘lizard’ (Capell); ‘gecko’ (Ryan)
PPn	<i>*moko</i> ‘lizard’ (POLLEX)		
Pn:	Tongan	<i>moko</i>	‘k.o. lizard, light brown’
Pn:	Niuean	<i>moko</i>	‘generic for most creeping and crawling creatures’
Pn:	Samoaan	<i>moʔo</i>	‘gecko’
Pn:	Rennellese	<i>moko</i>	‘geckos’
Pn:	Tikopia	<i>moko</i>	‘lizard (generic); incl. black lizard (<i>moko-uri</i>), small gecko (<i>moko-pili</i>), large dark coloured gecko (<i>moko-fata</i>), crocodile (<i>moko-toro</i>)
Pn:	Hawaiian	<i>moʔo</i>	‘lizard; reptile of any kind’
cf. also:			
PT:	Saliba	(<i>kenokeno</i>) <i>mugu</i>	‘lazy snake’ (<i>keno</i> ‘lie down’)

The Ubir gloss of ‘cobra’ in the next set is wrong, as Asian cobras are not present in the New Guinea region (Cogger 1972a:1013).

PWoc **sibi* ‘k.o. snake’

PT:	Ubir	<i>sib</i>	‘cobra’
MM:	Nakanai	<i>sibi</i>	‘small snake’
		<i>si-sibi</i>	‘red snake which turns black after death’

5.4.2 Sea snakes (Elapidae)

Sea snakes are venomous elapid snakes that have adapted to living in the sea. Many are found in shallow coastal waters and estuaries. They have an eel-like appearance, with laterally compressed bodies and (in many species) paddle-like tails that aid swimming. Sea snakes are widespread in the Pacific, with one species, *Pelamis platurus*, the yellow-bellied sea snake, found across the entire Pacific region. Four species are known in Fiji, two of which, *Laticauda colubrina* and *L. laticaudata*, are semi-terrestrial (Ryan 1988:111–114).

Agreement between Central Pacific and Vanuatu languages allows reconstruction of Proto Remote Oceanic **takulasi* or **takusali* ‘sea snake’. Metathesis of consonants has occurred more than once in the final two syllables, making the original form uncertain.

PROc **takulasi* ‘sea snake’ (PSOc **ta(k,g)ulasi* or **ta(k,g)usali* ‘sea snake’; John Lynch, pers. comm.)

NCV:	Lo-Toga	<i>təyleh</i>	‘sea snake’
NCV:	Lonwolwol	<i>telsil</i>	‘snake’
NCV:	Paamese	<i>tousali</i>	‘sea snake’
SV:	Sye	<i>tunʔklah</i>	‘sea snake’
SV:	Ura	<i>duŋlas</i>	‘sea snake’
Fij:	Wayan	<i>da-dakulaði</i>	‘ <i>Laticauda colubrina</i> , black and white banded sea snake’
Fij:	Bauan	<i>dakulaði, da-dakulaði</i>	‘black and white banded sea snake’
PPn	<i>*takuhali</i> ‘black and white banded sea snake’ (POLLEX)		
Pn:	Tongan	<i>tukuhalo</i>	‘sea snake with black and white bands’

Pn:	Niuean	<i>katuali</i>	‘sea snake, banded black and white’(metathesis; loss of <i>*h</i> unexpected)
Pn:	E Futunan	<i>takuali</i>	‘sea snake, blue and white bands’
Pn:	Tokelauan	<i>takuali</i>	‘k.o. very rare and small but most dangerous sea eel which attacks’

In the Banks languages of northern Vanuatu the sea snake, *Laticauda semifasciata*, is referred to by reflexes of **m^wai*.

NCV:	Mota	<i>m^wai</i>	‘sea snake’
NCV:	Mwotlap	<i>m^we</i>	‘sea snake characterised by black and white stripes; succubus, female demon, harmful’

6 Amphibians

The only amphibians present in Oceania are frogs. Menzies (2006:3) writes that ‘at the latest count, New Guinea [including the Admiralties and Bismarck Archipelago] and the Solomon Islands have a total of 35 genera and 322 recognised species ... and, despite lacking several frog families present in southeast Asia, the region remains one of the most species-rich in the world’. East of the Solomons the native frog population is almost negligible. Codrington (1891:17) notes that frogs are absent in Santa Cruz. An account by Medway and Marshall (quoted by Walsh et al. 2000:235) contains the following observation: ‘There are no amphibians native to the New Hebrides [Vanuatu], and none was taken by Dr Felix Speiser who collected herpetological material in these islands in 1910–12.’ Morrison (2003:11) reports that there are two endemic species of frogs in Fiji, the Fiji tree frog, *Platymantis vitiensis*, and the Fiji ground frog, *P. vitianus*. There are no endemic frogs in Micronesia, nor, with the exception of New Zealand, in Polynesia. New Zealand has four native species, all belonging to the genus *Leiopelma*, an ancient and primitive group of frogs.

Four families occur without human intervention in New Guinea, Australia and islands of the western Pacific (Menzies 2006:6): the Hylidae (mostly climbing frogs, found throughout New Guinea and the Solomons, and on Timor, Seram and Halmahera), Myobatrachidae (mainly ground-dwelling frogs, with distribution confined to Australia and New Guinea), Ranidae (pond frogs and some others, a vast family of almost world-wide occurrence), and Microhylidae, a wide variety of morphologically distinct types. Menzies (2006:172) writes that Microhylidae ‘is almost worldwide in distribution but reaches its greatest diversity in the tropics, and the origin of the New Guinean genera almost certainly lies with some currently unknown southeast Asian ancestor’. The families are unevenly distributed, with 89 percent of the New Guinea mainland population from just two families, Hylidae and Microhylidae, while in the Solomon Islands 92 percent are Ranidae. The occurrence of Bufonidae (toads) in Oceania is due to deliberate or accidental introduction in recent times. The native species occupy a wide range of habitats, many found well away from water provided humidity is adequate. A substantial number lack a tadpole stage, the young hatching on land. Complex topography and close juxtaposition of different habitats have facilitated species differentiation so that few species are widespread over the whole region. Most species for which adequate data exists have relatively restricted distribution.

Certain species of frog are eaten in parts of Melanesia, but we have very limited information as to which Oceanic communities eat frogs.

Although onomatopoeia plays a large part in naming kinds of frogs, the picture is complicated by the fact that different species may have very distinctive calls. Mussau *ropa-ropa*, Lourek-rek, Dobu *k^we-k^we*, Yabem *k^wey-k^wey*; Takia *way-way*; Molima *b^we-b^we*, Tolai *rok-rok* are all frog names presumably reflecting particular calls. Only the males utter the characteristic species-specific calls.

None of the glosses for the several reconstructions proposed here are at all specific. It seems that wordlist compilers are generally content to collect one or two terms, probably generic or perhaps identifying a well-known frog of the area, but few sources give more than minimal details. However, Kalam speakers of the Central Highlands (a non-Austronesian language of the Trans New Guinea family) distinguish 35 different taxa (Bulmer & Tyler 1968), and it is probable that many Oceanic communities name more than have been recorded. In any event, as most species have limited distribution, species names are likely to be local innovations.

PMP **palakaq* 'frog' (ACD: PWMP) has possible cognates in a few Oceanic languages, although correspondences are irregular.

POc **pa(R,r)a(C)* 'frog'

NNG:	Bing	<i>far</i>	'frog (generic)'
PT:	Ouma	<i>(a)para-para</i>	'frog'
PT:	Hula	<i>pala(keo)</i>	'frog'
PT:	Balawaia	<i>fara(keo)</i>	'big frog'
PT:	Motu	<i>para-para</i>	'frog'
MM:	Vangunu	<i>para(goa)</i>	'large frog'
MM:	Marovo	<i>para(goa)</i>	'frogs (generic)'

cf. also:

MM:	Nakanai	<i>pere</i>	'small frog'
MM:	Tolai	<i>per</i>	'frog'
SES:	Arosi	<i>haro</i>	'tadpole'
		<i>p^waro(ʔama-ʔama)</i>	'k.o. large frog'

The term **kuRau*, for a kind of frog, is attested by reflexes in a single Sarmi Coast language and in Southeast Solomonic, with possible cognates in a number of other groups.

POc **kuRau* 'frog taxon'

SJ:	Ormu	<i>kurau</i>	(Smits 1992:896)
SES:	Bugotu	<i>kulau</i>	'tree frog'
SES:	Gela	<i>kulau</i>	'a small frog'
SES:	Lau	<i>ʔulao, ʔulou</i>	'k.o. very large frog, <i>Rana guppyi</i> '
SES:	Bauro	<i>urau</i>	'frog' (initial <i>k</i> - or <i>ʔ</i> - expected)

cf. also:

NNG:	Manam	<i>kuru(basi)</i>	'k.o. green tree frog'
PT:	Mekeo	<i>kulua</i>	'k.o. tree frog'
PT:	Sudest	<i>kula</i>	'small frog'
PT:	Balawaia	<i>kura(fege)</i>	(<i>fege</i> 'small frog')

MM:	Halia	<i>kura</i>	‘frog, lives in dry places’
MM:	Tinputz	<i>kura</i>	‘frog, Ranid’
MM:	Kia	<i>kule</i>	‘frog’
MM:	Nduke	<i>(pa)karau</i>	‘frog’
MM:	Lungga	<i>(ba)karau</i>	‘frog’
MM:	Roviana	<i>(ba)karao</i>	‘frog’
SES:	Bugotu	<i>kui-kuli</i>	‘frog’
SES:	Arosi	<i>wairau</i>	‘frog’

The following set is almost certainly onomatopoeic.

PNNG **karok* ‘frog’

NNG:	Gedaged	<i>gazok</i>	‘various kinds of frog’
NNG:	Kaulong	<i>kahok</i>	
NNG:	Sengseng	<i>kahok</i>	
NNG:	Kove	<i>kalo</i>	
NNG:	Lusi	<i>kalo</i>	

cf. also:

PT:	Saliba	<i>k^walu-k^walu</i>	
PT:	Wedau	<i>geru</i>	
MM:	Nakanai	<i>karu-karu</i>	‘frog, not eaten’
MM:	Halia	<i>karou</i>	‘frog, stays in fresh water’

An additional POC reconstruction, **k^wek^we*, is indicated by agreements between Admiralties, North New Guinea, Papuan Tip and Southeast Solomon witnesses. However, the nature of the form suggests onomatopoeia, and the possibility of parallel development cannot be ruled out.

POC **/k^we/k^wek^we* ‘k.o. frog’

Adm:	Seimat	<i>keke(u)</i>	‘k.o. frog’
NNG:	Mangseng	<i>keki</i>	‘frog’
NNG:	Hote	<i>kok^wek</i>	‘frog’
PT:	Saliba	<i>k^wek^we</i>	‘tree frog’
PT:	Tawala	<i>k^wek^we</i>	‘k.o. frog’
PT:	Tubetube	<i>k^wek^we</i>	‘frog’
PT:	Dobu	<i>k^wek^we</i>	‘frog’
		<i>(sik^wesi) k^wek^we</i>	‘small frog, undeveloped’
PT:	Gumawana	<i>k^wek^we</i>	‘frog’
SES:	Gela	<i>kekeke</i>	‘k.o. frog’
SES:	Lau	<i>ʔiki-ʔiki</i>	‘k.o. frog’

cf. also:

PT:	Gapapaiwa	<i>k^were</i>	‘frog’
SES:	’Are’are	<i>koʔe</i>	‘frog’
SES:	Gela	<i>kere(rao)</i>	‘k.o. frog’
SES:	Lau	<i>k^were</i>	‘k.o. frog’

The following cognate set is confined to Vitu, the New Ireland group, Nehan and Buka. The fact that *rokrok* is also Tok Pisin for ‘frog’, from Tolai, makes this set problematic. However, a portion of Tok Pisin vocabulary has its origins in southern New Ireland languages.

PMM ? **rokrok* ‘bullfrog’

MM:	Vitu	<i>rok-rok</i>	‘frog’
MM:	Sursurunga	<i>rok-rok</i>	‘frog, incl. marine toad’
MM:	Patpatar	<i>rok-rok</i>	‘k.o. frog that stays on ground’
MM:	Tolai	<i>rok-rok</i>	‘k.o. frog’
MM:	Ramoaaina	<i>rok-rok</i>	‘frog’
MM:	Nehan	<i>rok-rok</i>	‘frog’
MM:	Tinputz	<i>rok-rok</i>	‘bullfrog’

cf. also:

Adm:	Lou	<i>rek-rek</i>	‘large green frog, bullfrog’
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Proto SE Solomonic **b^wari* ‘large frog’

SES:	Gela	<i>bari</i>	‘k.o. large frog’
SES:	Tolo	<i>bari</i>	‘large water frog’
SES:	’Are’are	<i>pari</i>	‘small frog’
SES:	Longgu	<i>b^wari</i>	‘big frog, lives near river; bush frog’

A POc term for ‘tadpole’ has proved elusive. The etymon *k^wasi* ‘tadpole’ is found in two closely related Papuan Tip languages, Molima and Bwaidoga. Elsewhere we find *k^wasi* ‘k.o. frog’ in Lau, a SE Solomonic language. However, Lau *k^w* reflects POc **w*, so the term is evidently a borrowing. No other cognates have been located.

From the following cognate set, it appears that **kuni* may be reconstructed as a PWOC term for ‘frog’, and with variable modifier as a term for ‘tadpole’ in PT languages.

PWOC **kuni* ‘? frog, tadpole’

PT:	Gapapaiwa	<i>kuni(goagoa), kunu(goagoa)</i>	‘tadpole’
PT:	Molima	<i>(b^wali)kunu-kunu</i>	‘tadpoles’
PT:	Dobu	<i>(wari)kunu-kunu</i>	‘tadpoles’ ¹¹
MM:	Simbo	<i>kuni</i>	‘frog (generic)’
MM:	Roviana	<i>kuni</i>	‘small noisy frog’

7 Body parts

7.1 Mammal body parts

Most mammal body-part terms are also terms for human body-parts. For instance, ‘fur’ equates with ‘body hair’ (typically from POc **pulu*), both ‘hind leg’ and ‘fore leg’ with ‘leg’

¹¹ In Dobu the term for crocodile is *warigoa* and that for seahorse or pipefish *wariwarigoa*, reduplication of the first two syllables being a common way of indicating an inferior or diminutive form of the named item. It seems that here the prefix is being used by analogy.

(POc **qaqe* ‘leg, foot’ or POc **paqal* ‘thigh’), ‘paw’ with ‘hand’ (POc **lima*), and ‘claw’ with ‘nail’ (POc **kuku*). The generic term for teeth, animal or human, was POc **[l,n]ipon*, a term which could also include ‘tusk’ (see §7.1.2 below).

7.1.1 Canine tooth

POc **bati* evidently referred specifically to canine teeth. These teeth may have been singled out for special naming in POc times because of their distinctive shape, which made them suitable for decoration, but cognates occur in Vanuatu with particular reference to pigs. There, boars sometimes had their upper canine teeth removed to enable the lower tusks to grow in a circle and re-enter the jawbone. These pigs played a significant role in status rituals, and languages had numerous terms for boars at various stages of tusk growth.

POc **bati* ‘tusk, canine tooth’

NNG:	Gedaged	<i>bali</i>	‘canine tooth of dog; ornamental band for forehead made of dog’s teeth’
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PSOc **bati* ‘tusk, upper canine tooth’ (John Lynch, pers. comm.)

NCV:	Mota	<i>pati(u)</i>	‘upper tusk in a boar, knocked out to let the lower tusk grow long; the corresponding teeth in man’
NCV:	Uripiv	<i>bati-n</i>	‘upper canine tooth, of pig, porpoise or person’
NCV:	Avava	<i>bas-n</i>	‘upper tusk of a pig, incisor’
SV:	Sye	<i>ne-pati</i>	‘pig tusk’
SV:	Kwamera	<i>nə-pati-</i>	‘tusk, horn’
SV:	Anejoñ	<i>ni-pat</i>	‘tusk, horn, tusked pig’
Fij:	Bauan	<i>bati-na</i>	‘tooth (generic); tusk’

cf. also:

MM:	Nduke	<i>patu</i>	‘tooth’ (polite) (reflects <i>*p</i>)
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7.1.2 Pig tusk

POc **[l,n]ipon* ‘tooth’ has reflexes across subgroups which indicate that pig tusks were included within its meaning.

POc **[l,n]ipon* ‘tooth, tusk’

Adm:	Lou	<i>lia-n puo</i>	‘tusk of pig’
NNG:	Tuam	<i>livo</i>	‘tooth’
SES:	Lau	<i>lifo</i>	‘tusk, tooth, porpoise teeth used as money’
SES:	Sa’a	<i>niho</i>	‘tusk, tooth’
SES:	Arosi	<i>riho-na</i>	‘tusk, tooth’
NCV:	Mwotlap	<i>ni-lrw</i>	‘pig tusk’
NCV:	Sa	<i>lio b^wê</i>	‘pig tusk’
Pn:	Tongan	<i>nifo</i>	‘tooth, tusk, nippers’
Pn:	Samoan	<i>nifo</i>	‘tooth, tusk, horn’

A NGOc term, **joŋa*, which apparently referred to ‘pig’s tusk’, is also reconstructable.

PNGOc **joŋa* ‘(boar’s) tusk’

NNG:	Tami	<i>joŋ</i>	‘boar’s tusk’
NNG:	Manam	<i>zoŋo</i>	‘tusk’
PT:	Kilivila	<i>doga</i>	‘pig’s tusk’
PT:	Wedau	<i>tona</i>	‘tusk’
PT:	Saliba	<i>dona</i>	‘horn’
PT:	Motu	<i>doa</i>	‘tusk’
PT:	Muyuw	<i>dog</i>	‘tusk, horn’

cf. also:

MM:	Nakanai	<i>togo</i>	‘tooth, tusk, claw’ (<i>t-</i> for <i>†s-</i>)
MM:	Tolai	<i>lokono</i>	‘tusk, pig with tusks’

7.1.3 Tail

POc **iku(R)* ‘tail’ continues a PAn etymon. Although many Oceanic wordlists simply give ‘tail’ as the gloss, a substantial number indicate that reflexes of this term relate primarily to tails of quadrupeds. It is likely that more spectacular tail feathers of birds would have been separately named (Clark reconstructs POc **lawe*, ‘tail feathers, plume’ in ch. 6) but more commonplace bird tails were probably referred to by **ikuR*. Tails of fish are possibly also included.

PAn **ikuR* ‘tail’ (ACD)

POc **iku(R)* ‘tail, of quadruped, some birds and possibly fish’ (cf ch. 6, p.277)

Adm:	Nyindrou	<i>kiwi-n</i>	‘tail’
NNG:	Wogeo	<i>iku</i>	‘tail’
NNG:	Gitua	<i>igu</i>	‘tail’
PT:	Motu	<i>iu</i>	‘tail (of animals)’
PT:	Tawala	<i>giu-na</i>	‘tail’
MM:	Nakanai	<i>kiu</i>	‘tail of dog +’ (metathesis)
MM:	Bulu	<i>iku</i>	‘tail of dog’
MM:	Tolai	<i>uku-na</i>	‘tail’
SES:	Gela	<i>iyu</i>	‘tail’
SES:	Bugotu	<i>iu-iyu</i>	‘tail, of dog, bird, fish’
SES:	Longgu	<i>iku-iku</i>	‘tail of dog, pig, etc.’
SES:	Lau	<i>ki-kiu</i>	‘tail of animal, fish (not bird)’
SV:	Anejoñ	<i>n-iyē</i>	‘tail of fish’
NCal:	Xârâcùù	<i>k^wi</i>	‘tail, general term, can include fish’
Mic:	Woleaian	<i>iux</i>	‘tail of bird’
Mic:	Puluwatese	<i>wik</i>	‘tail, as of birds, chickens, fish, hindquarters as of dog’
Pn:	Tongan	<i>iku</i>	‘tail (esp. of a quadruped)’ (<i>hiku</i> ‘tail of fish or reptile’)
Pn:	Samoan	<i>iʔu</i>	‘tail (as of a fish); tail of a shark (as a portion) when it is divided according to custom’

A number of Polynesian languages use reflexes of PPn **siku* to refer to fish and animal tails. These may show contamination from POC **siku(n)* ‘elbow, corner’, PPn **siku* ‘extremity; end; tail (esp. of fish)’

7.2 Reptile body parts

7.2.1 Turtle shell

A POC term for the shell or carapace of turtles rests on agreement between Proto Micronesian **p^wōca* and a cognate in an Admiralties language, Wuvulu. The Wuvulu word may be a borrowing from Micronesian.

POC **bo(dr,d)a* ‘turtle shell’

Adm: Wuvulu *poxa* ‘turtle shell’

PMic **p^wōca* ‘turtle shell’ (Bender et al. 2003)

Mic: Chuukese *p^wōç* ‘armour-plating of turtle’s or crocodile’s back’

Mic: Mortlockese *p^wōş*

Mic: Puluwatese *p^wōr* ‘outer layer of turtle shell, used for fishhooks, earrings etc.’

Mic: Carolinian *b^wōş* ‘k.o. shell from turtle or coconut, used to make jewellery, bowls etc.’

Mic: Woleaian *ϕ^wōşe* ‘turtle shell’

Mic: Kiribati *te-b^wora* ‘turtle shell’

In many Polynesian languages and at least one Southeast Solomonian language, reflexes of POC **qunap* ‘fish scales’ also refer to the shell of a turtle. (See also chapter 2, §66.3)

PEOC **qunap* ‘turtle shell, fish scales’

SES: Arosi *una-na* ‘turtle shell, tortoiseshell’ (*unahi* ‘to remove shell from turtle, scale a fish’)

Pn: Niuean *una* ‘turtle shell’ (*hinafi* ‘fish scales’)

Pn: Tongan *ʔuno* ‘scale of fish, shell of turtle’

Pn: Rennellese *ʔuna* ‘outer shell, as of turtle’ (*ʔunahi* ‘fish scales’)

Pn: Samoan *una* ‘shell of hawksbill turtle, fish scale’ (*unafi* ‘to scale’)

Pn: Tikopia *una* ‘carapace of marine turtle’ (*unafi* ‘fish scale’)

Pn: Hawaiian *una* ‘turtle shell’ (*unahi* ‘fish scales’)

cf. also:

MM: Kia *ŋapo* ‘turtle shell’

7.2.2 Gaps in reconstruction

POC speakers almost certainly had names for several different parts of a turtle in addition to the shell. Arosi, for instance, has terms for ‘flat back plates of shell’, ‘curved side plates of shell’ and ‘turtle fat’. However, most dictionaries fail to record such details and we are unable to make secure reconstructions for other turtle parts.

From the few items located, it seems that in Polynesia flippers of turtle, stingray and whale may have been denoted by a derivative of the verb POc **kaba* ‘wing’, PEOc **kaba-kaba* ‘to flap wings’, reflexes of which can also refer to pectoral fins of fish (see ch.2, §66.4 and ch.6, §2). Terms for ‘turtle egg’ are commonly reflexes of the generic term for egg, POc **qatoluR*. However, at least one language, To’aba’ita (SES) has a term, *k^walaruru* applying specifically to ‘a collection of turtle or spider eggs’. Sa’a (SES) has *apota* ‘eggs of turtle or crocodile’.

6 *Birds*

ROSS CLARK

1 Introduction

There may not have been a domain of the Proto Oceanic lexicon corresponding precisely to the Class Aves. The creatures referred to by reflexes of POc **manuk* (below) almost always include bats and sometimes other flying animals. For example, Kwaio *lanasi* (a taboo replacement for *manu*) ‘in the broadest categorical sense, includes birds, butterflies, moths, bats, dragonflies and one species of frogs (*Pseudophryne* sp.)’ (Keesing 1975:119). At its widest **manuk* may have encompassed the entire non-aquatic animal kingdom (for discussion see chapter 8, §§5 and 6). More restrictive expressions are often coined by adding a modifier to **manuk*, typically the verb ‘to fly’, for example Chuukese *mār* ‘living creature of land or air (other than human)’, *maççaŋ* ‘bird’ (cf. *çaŋ* ‘fly’). The organisation of this book, however, follows the Linnaean classification, and bats will be found in chapter 5, with only a couple of cross-references below to connect the two.

POc **manuk* (1) ‘flying creature’, (2) ‘animal’

Adm:	Lou	<i>mon-mon</i>	‘bird’
NNG:	Mangap	<i>man</i>	‘bird, also includes bats and other flying creatures with bones’
NNG:	Lukep (Pono)	<i>man</i>	‘bird (generic)’
		<i>manu-manu</i>	‘bird sp., flycatcher’
NNG:	Bariai	<i>man</i>	‘bird’
NNG:	Manam	<i>maŋ</i>	‘bird, chicken’
NNG:	Hote	<i>menak</i>	‘bird’
NNG:	Mapos Buang	<i>mank</i>	‘bird’
MM:	Bali	<i>manuku</i>	‘bird’
MM:	Bola	<i>manu</i>	‘fish’
MM:	Bulu	<i>manu</i>	‘bird’
MM:	Kara (East)	<i>manu</i>	‘bird’

MM:	Nalik	<i>mani</i>	‘bird’
MM:	Lihir	<i>mon</i>	‘bird’
MM:	Sursurunga	<i>man</i>	‘bird, flying thing (not insects)’
MM:	Banoni	<i>manuyu</i>	‘bird’
MM:	Simbo	<i>manuyu</i>	‘all creatures, including animals, human beings, birds, marine mammals and possibly fish; thing; thingummybob’
PT:	Iduna	<i>manuga</i>	‘bird’
PT:	Tawala	<i>manuwa</i>	‘bird’
PT:	Balawaia	<i>manu</i>	‘bird’
PT:	Motu	<i>manu</i>	‘all creatures that fly, including flying foxes’
SES:	Bugotu	<i>manu</i>	‘bird’
SES:	Gela	<i>manu</i>	‘bird, flying creature’
SES:	Kwaio	<i>manu</i>	‘bird’
SES:	Lau	<i>manu</i>	‘bird’
SES:	Sa’a	<i>menu</i>	‘bird, insect’
SES:	Longgu	<i>manu</i>	‘bird’
		<i>manu-manu</i>	‘insect’
SES:	Arosi	<i>manu</i>	‘bird, winged creature’
TM:	Buma	<i>menuko</i>	‘bird’
NCV:	Mota	<i>manu</i>	‘bird, flying creature, beetle, bat’
NCV:	Raga	<i>manu</i>	‘bird’
NCV:	Big Nambas	<i>nanəy</i>	‘bird’
NCV:	Malua Bay	<i>nə-menox</i>	‘bird’
NCV:	Paamese	<i>a-manu</i>	‘bird’
NCV:	Uripiv	<i>nu-mön</i>	‘bird’
NCV:	Port Sandwich	<i>na-man</i>	‘bird’
NCV:	Nguna	<i>mānu</i>	‘bird’
PSV * <i>manuy</i> ‘bird’ (Lynch 2001)			
SV:	Sye	<i>menuy</i>	‘bird’
SV:	Lenakel	<i>menuk</i>	‘bird’
SV:	Kwamera	<i>menu</i>	‘bird’
SV:	Anejoñ	<i>in-man</i>	‘bird’
PMic * <i>manu</i> ‘living creature of land or air’ (Bender et al. 1983)			
Mic:	Kiribati	<i>te-man</i>	‘animal, bird’
Mic:	Kosraean	<i>mæn</i>	‘animal, insect’
Mic:	Chuukese	<i>mān</i>	‘living creature’
Mic:	Puluwat	<i>mān</i>	‘living creature’
Mic:	Carolinian	<i>māl</i>	‘living creature’
Mic:	Ponapean	<i>mān</i>	‘animal, insect’
Fij:	Boumā	<i>manu-manu</i>	‘animal, bird’
Fij:	Wayan	<i>manu-manu</i>	‘animal, living thing, creature, being, normally excluding human beings’
Fij:	Rotuman	<i>man-manu</i>	‘bird, animal, insect’
Pn:	Tongan	<i>manu</i>	‘animal, bird’
Pn:	Niuean	<i>manu</i>	‘animal’

Pn:	Anutan	<i>manu</i>	‘bird or flying insect’
		<i>manu-manu</i>	‘animal’
Pn:	Pileni	<i>manu</i>	‘bird, flying animal’
		<i>manu-manu</i>	‘bird’
Pn:	Rennellese	<i>manu</i>	‘fauna except human beings’
Pn:	Tikopia	<i>manu</i>	‘creature, ranging from mammal to arthropod; especially including birds’
Pn:	E Futunan	<i>manu</i>	‘animal, animal, bird’
Pn:	E Uvean	<i>manu</i>	‘animal’
Pn:	Samoa	<i>manu</i>	‘animal, bird’
Pn:	Luangiua	<i>manu</i>	‘bird, animal’
Pn:	Tuvalu	<i>manu</i>	‘animal’
Pn:	Hawaiian	<i>manu</i>	‘bird’
Pn:	Māori	<i>manu</i>	‘bird’

Birds played varied roles in the life of Oceanic speakers. Besides the domesticated fowl (*Gallus gallus*), some types of birds (including frigate birds and parrots) were caught and kept as pets. Others were prized as food (pigeons and doves, some seabirds). The large eggs of the megapode were gathered for food. The feathers of many species had decorative uses, and their bones were used for a range of artefacts from needles to flutes. Birds could be caught with snares, nets or traps of various kinds, or shot with bow and arrow. (Special blunt-tipped arrows avoided damage to valued feathers.) Apart from direct exploitation, some birds could be sources of useful information, such as flocks of terns indicating the location of schools of fish, or landbirds far out at sea, indicating the presence of land nearby. Some, on the other hand, were harmful, such as the raptors that preyed on domestic fowl, or the swamp-hen with its destructive effects on taro gardens.

A widespread belief was that the voices of certain species could foretell such events as a death or the arrival of visitors. In eastern Polynesia, the visitors themselves were referred to as ‘birds’ (Proto Central Eastern Polynesian **manu-firi* ‘chosen (?) birds’). And in myth, folk tale and religious belief, birds play almost as varied a range of roles as do humans. Among the Dobuans, ‘the native term for totem is the term for bird ... [and] one stranger may ask another, “what is your bird?”’ (Fortune 1963:32).

2 The life and parts of birds

A few aspects of avian anatomy and behaviour are different enough from their human (or mammalian) analogues that they might be expected to be separately lexicalised. In most cases, however, POc appears to have found commonalities with more general anatomical features of the animal kingdom.

Perhaps the most emblematic features of birds are feathers and wings. But the most general term for feathers is the same as that for human body hair and animal fur:

PMP **bulu* ‘body hair, fur, feather, down, floss’ (Dempwolff 1938)

POc **pulu* ‘body hair, fur, feathers’

Yap:	Yapese	<i>wul</i>	‘feather’
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NNG:	Hote	<i>vulu-k</i>	‘hair, feathers’
PT:	Motu	<i>hui-na</i>	‘hair, feather’
PT:	Mekeo	<i>pui</i>	‘feather’
MM:	Nakanai	<i>vulu</i>	‘feathers, feather headdress’
MM:	Nehan	<i>ulu-</i>	‘feather’
SES:	Bugotu	<i>vulu-ña</i>	‘feather, hair’
SES:	Gela	<i>vu-vulu</i>	‘hair, feather’
NCV:	Mota	<i>ulu-i</i>	‘hair, feathers’
NCV:	Paamese	<i>hilin</i>	‘hair (of head), feathers’
NCV:	Lewo	<i>vilu-na</i>	‘feather, hair’
NCal:	Pije	<i>pun-</i>	‘hair, feather’
NCal:	Ajië	<i>pūrū</i>	‘feather’
Fij:	Wayan	<i>vulu</i>	‘hair, fur, feathers’
Pn:	Tongan	<i>fulu-fulu</i>	‘hair (esp. on the body), fur, feathers’
Pn:	Rennellese	<i>hugu</i>	‘body hair, feathers, fur’
Pn:	Māori	<i>huru</i>	‘hair, feather’

A second set with this meaning is connected with PMP **ibut* ‘pull, uproot’ (Blust 1995):

POc **ipu* ‘hair, feather’

MM:	Bola	<i>ivu</i>	‘hair, feather’
MM:	Nakanai	<i>ivu-la</i>	‘head hair, plumage of bird’
MM:	Tolai	<i>ivu</i>	‘body hair, fur, feathers’
SES:	Tolo	<i>ivu-na</i>	‘hair, fur, feathers’
SES:	Kwaio	<i>ififu-na</i>	‘feather, hair’
SES:	Sa’a	<i>ihu</i>	‘hair, feather’

Both of the above refer to the overall covering of birds that is analogous to the hair covering of mammals. Feathers particularly conspicuous by length or colour have probably always been of special interest and valued as decoration. A term for such feathers is reconstructed for PMP, but its unambiguous Oceanic reflexes are restricted in scope:

PMP **lawi* ‘tail feather’ (Dempwolff 1938)

POc **lawe* ‘tail feather, plume’

Fij:	Rotuman	<i>lalovi</i>	‘feather’
Fij:	Bauan	<i>lawe</i>	‘the larger feathers of a bird’
Pn:	Tongan	<i>lave</i>	‘long tail-feather’
Pn:	Samoa	<i>lave</i>	‘a part of a head-dress, a crest’

A number of forms suggested a variant reconstruction **la-lau*.¹

NNG:	Manam	<i>la-lau</i>	‘feather’
NNG:	Bing	<i>la-lahaw</i>	‘tail feathers of poultry’

¹ This is distinct from POc **raun* ‘leaves, head hair’, reflected in Titan (Adm) *laun* ‘leaf, hair, feathers’, Bariai (NNG) *i-laun* ‘his/her hair, its feathers’.

MM:	Tangga	<i>o-lo-lo</i>	‘hair, feathers’
MM:	Nehan	<i>la-le</i>	‘feather’
SES:	Kwaio	<i>la-la(ŋaʔa)</i>	‘feather’
NCV:	Raga	<i>la-lau</i>	‘feather’
SV:	Anejom̃	<i>na-lau</i>	‘feather’
Fij:	Wayan	<i>lau-lau</i>	‘tail’

A distinct lexical item POc **banic* ‘wing, arm, hand, fin (probably pectoral)’ is widely attested. Its PMP ancestor **panij* denoted only wings, but its meaning had clearly been extended in POc (see chapter 2 for a fuller cognate set and discussion).

PMP **panij* ‘wing’ (Dempwolff 1938, ACD)

POc **banic* ‘arm, hand, wing, fin (probably pectoral)’

Adm:	Kaniet	<i>pani</i>	‘wing, hand, fin’
Adm:	Nyindrou	<i>bani-n</i>	‘wing’
Adm:	Nauna	<i>pin</i>	‘wing’
Adm:	Mondropolon	<i>pani-n</i>	‘wing’
Adm:	Drehet	<i>peni-ŋ</i>	‘wing’
NNG:	Gedaged	<i>bani-n</i>	‘fin, wing’
NNG:	Wampur	<i>bani-t</i>	‘wing’
NNG:	Mapos Buang	<i>bani-s</i>	‘fin, wing’
PT:	Gumawana	<i>pane-pane-na</i>	‘fish fins, bird’s wing’
PT:	Balawaia	<i>vane</i>	‘wing, fin’ (expected † <i>bani</i>)
PT:	Motu	<i>hani</i>	‘wing, fin (expected † <i>bani</i>)’
PT:	Mekeo	<i>pa-pani</i>	‘wing-like object, incl. fins’ (expected † <i>fani</i>)
MM:	Vitu	<i>baniti-</i>	‘wing, upper arm’
NCV:	Mota	<i>paneī, panīu</i>	‘hand and arm, wing, pectoral fin, pig’s shoulder’
NCV:	Merlav	<i>bani</i>	‘wing’
NCV:	Atchin	<i>na-^mben</i>	‘wing, sail, armlet’
NCal:	Iaai	<i>beñi-n</i>	‘hand, arm, fin’
		<i>la-beñi-n</i>	‘wing’
Mic:	Marshallese	<i>pā</i>	‘arm, hand, wing, fin’
Mic:	Carolinian	<i>pp^wan</i>	‘pectoral fin and attached bone of fish’
Mic:	Ulithian	<i>pal</i>	‘ventral fin; hand’

Dempwolff (1938) reconstructs PMP **kapak* ‘wings; flutter’ on the basis of Oceanic data and Malay *kepak*, Ngaju Dayak *kapak*. This etymon appears to be reflected by the widespread etymon POc **kaba* (N) ‘wing’, (v) ‘flap wings’.

PMP **kapak* ‘wings; flutter’ (Dempwolff 1938)

POc **kaba* (N) ‘wing’, (v) ‘flap wings’

SES:	Lau	<i>ʔaba</i>	‘wing, hand, arm, foreleg’
		<i>ʔaba-ʔaba</i>	‘to flap the wings’
SES:	Kwaio	<i>ʔaba-ʔaba</i>	‘wing’
SES:	’Are’are	<i>apa</i>	‘wing’
		<i>ʔapa-a</i>	‘flap wings’

SES:	Sa'a	<i>ʔapa-ʔapa</i>	'wing'
TM:	Buma	<i>ava</i>	'wing'
		<i>-ava</i>	'to fly'
TM:	Tanema	<i>-apa</i>	'to fly'
NCV:	Mota	<i>yava</i>	'flap wings, fly'
NCV:	Nokuku	<i>kave-n</i>	'wing'
NCV:	Tolomako	<i>kava-kava</i>	'wing'
		<i>kava</i>	'fly'
NCV:	Raga	<i>yaba</i>	'wing'
NCV:	Malua Bay	<i>gə-gep</i>	'fly'
SV:	Lenakel	<i>nə-kav-kavə-</i>	'wing'
Fij:	Wayan	<i>kā-kava</i>	'wing'
Fij:	Rotuman	<i>kap-kapo</i>	'to flutter downwards as if about to alight (of birds flying)'

PPn **kapa* (v) 'beat, of wings, fins, flippers' (POLLEX)

PPn **kapa-kapa* (N) 'fish fins'; (v) 'flap wings' (POLLEX)

Pn:	Tongan	<i>kapa-kapa</i>	'side fin; flap wings'
Pn:	Samoan	<i>ʔapa-ʔapa</i>	'fin; flap wings'
		<i>ʔapa</i>	'to beat, of bird's wing, turtle flipper etc.'
Pn:	Pukapukan	<i>kapa-kapa</i>	'fish fin, turtle flipper, bird wing, arm of baby'
Pn:	Tikopia	<i>kapa-kapa</i>	'pectoral fins; flap wings'
Pn:	E Futunan	<i>kapa(tā)</i>	'beat wings'
Pn:	Tuvalu	<i>kopa</i>	'flap wing'
Pn:	Māori	<i>kapa-kapa</i>	'flap wings, flutter'

Derived from PPn **kapa* is PPn **kapa-kau* 'wing, fin':

PPn **kapa-kau* 'wing, fin' (POLLEX)

Pn:	Tongan	<i>kapakau</i>	'wing, winged'
Pn:	Niuean	<i>tapakau</i>	'wing of a bird, fin of a fish'
Pn:	E Futunan	<i>kapakau</i>	'wing'
Pn:	E Uvean	<i>kapakau</i>	'wing'
Pn:	Rennellese	<i>kapakau</i>	'wing'
Pn:	Tikopia	<i>kapakau</i>	'shoulder, upper arm, wing, fin'
Pn:	Luangiua	<i>apaʔau</i>	'wing'
Pn:	Samoan	<i>ʔapaʔau</i>	'wing'
Pn:	Tuvalu	<i>kapakau</i>	'wing, arm, lateral fin'

Blust (ACD) also reconstructs PWMP **kepek* 'flap wings' (expected POc form †**kopo(k)*) and PWMP **kepay-kepay* 'flap (wings, fins of fish, etc.)' (expected POc form †**kope*) with supporting data, and crossreferences the doublets **kapay* and **kipay* (without supporting data) (expected POc forms †**kape* and †**kipe*). PMP **kapay* is perhaps reflected by Tawala *apape* 'wing'. I find no straightforward reflexes of Blust's other reconstructions, but Iduna (PT) *ofa-na* '(its) wing' and Gela (SES) *gapo-gapo* 'spread wings, flap, flutter' suggest that there were perhaps several phonologically similar forms in POc cognate with the forms found in Western Malayo-Polynesian languages.

A bird's beak was most probably referred to as POc **ɲuju*, denoting the external or protruding aspect of the mouth. There is also some evidence for POc **muju*, in the form of non-Oceanic terms from which Blust (ACD) reconstructs PWMP **mu(n)cuŋ* 'mouth (of an animal), snout',² together with the Iduna, Gapapaiwa and Balawaia terms listed below, reflecting PPT **mu(dj)u*. However, it may be that this is a chance similarity and that PPT **muju* was an irregular reflex of POc **ɲuju*.³

POc **ɲuju* 'mouth, lips, snout, beak'

PT:	Motu	<i>udu</i>	'mouth, nose, beak'
MM:	Nehan	<i>ɲohɲoho-</i>	'beak'
MM:	Roviana	<i>ɲuzu</i>	'beak'
		<i>ɲuzu-ɲuzu</i>	'carved prow of war canoe'
SES:	Kwaio	<i>ɲidu-na</i>	'beak'
Fij:	Wayan	<i>ɲusu</i>	'mouth of an animal; external mouth or lips of a person, fish, etc.; beak (of bird or turtle); snout or muzzle of a dog, pig, etc.'
Pn:	Tongan	<i>ɲutu</i>	'mouth, beak, orifice'
Pn:	Rennellese	<i>ɲutu</i>	'mouth, beak, breath'
Pn:	Māori	<i>ɲutu</i>	'lip, beak, rim, mouth, entrance'

cf. also:

PT:	Iduna	<i>mudu</i>	'carved prow'
PT:	Gapapaiwa	<i>mutu</i>	'lips, beak'
PT:	Balawaia	<i>murū</i>	'beak'

Many, perhaps most Oceanic languages make some lexical distinctions among the tails of birds, fish, reptiles and mammals. The following very common term for tail appears applicable to birds in many languages:

PAn **ikuR* 'tail' (Blust 1995)

POc **iku(R)* 'tail, of quadruped, some birds and possibly fish' (cf ch. 5, §7.1.3)

Adm:	Nyindrou	<i>kiwi-n</i>	(metathesis)
NNG:	Manam	<i>eku</i>	
NNG:	Gitua	<i>igu</i>	
NNG:	Gedaged	<i>wi-n</i>	(metathesis)
NNG:	Takia	<i>uyu-n</i>	
PT:	Kilivila	<i>yeyu-na</i>	
PT:	Tawala	<i>giu-na</i>	(metathesis)
PT:	Balawaia	<i>yiyu</i>	
MM:	Nakanai	<i>kiu</i>	(metathesis)
SES:	Bugotu	<i>iu-iyu</i>	'tail (of dog, bird, fish)'
SES:	Kwaio	<i>ʔiʔi-na</i>	

² Isneg *motoŋ* 'mouth', Iban *muncuŋ* 'protruding, sticking out, esp. of jaw or lips', Toba Batak *munsuŋ* 'beak, snout', Malay *moncuŋ* 'snout', Wolio *muncu* '(outside of the) mouth, beak, snout'.

³ Both **ɲuju* and **muju* were also apparently used for the carved prow of a canoe, i.e. its 'beak': see vol.1, p.189.

SES:	Sa'a	<i>ʔu-ʔuʔi-na</i>	'tail of an animal' (metathesis)
SES:	Gela	<i>igu</i>	
NCal:	Xârâcùù	<i>kʷi</i>	
Mic:	Chuukese	<i>wĩk</i>	
Mic:	Ponapean	<i>iki</i>	
Pn:	Tongan	<i>iku</i>	

Finally, the feet of most bird species are likened to animal claws and fingernails:

PMP **kuSkus* 'claw, finger, toenail'

POc **kuku* 'nail (of hand or foot), claw'

NNG:	Mangap	<i>kukūnu</i>	'claw'
PT:	Tawala	<i>gigi-na</i>	'claw'
SES:	Bugotu	<i>yuyu</i>	'hoof, claw'
SES:	Gela	<i>kuku</i>	'swoop on prey, as a bird'
SES:	Tolo	<i>huhu-na</i>	
Mic:	Kiribati	<i>ūki</i>	
Mic:	Chuukese	<i>kki-r, wĩk</i>	
Mic:	Kiribati	<i>ūki</i>	
		<i>gugu</i>	'digit of person or animal: big toe, thumb, hoof, talon, claw'
Pn:	Tongan	<i>kuku</i>	'grasp, grip, clutch, hold on to'
Pn:	E Futunan	<i>(moti)kuku</i>	'claws'
Pn:	Māori	<i>(mai)kuku</i>	'nail, claw, hoof'

Other anatomical features such as the cock's comb and spurs are lexicalised diversely and there is no clear POc reconstruction.

The laying of relatively large (and often edible) eggs is distinctive of birds (along with turtles and other reptiles). A well established reconstruction is:

PMP **qateluR* 'egg, testicle' (Blust 1995)

POc **qatoluR* 'egg'

Adm:	Aua	<i>aʔulul</i>	
Adm:	Seimat	<i>atōli</i>	
Adm:	Loniu	<i>elutu</i>	(metathesis)
Adm:	Mussau	<i>otōlu</i>	
NNG:	Kairiru	<i>katol</i>	
NNG:	Tumleo	<i>tali-n</i>	
NNG:	Yabem	<i>ŋa-keʔsulu</i>	
NNG:	Mangap	<i>(man) kutulūnu</i>	
NNG:	Arawe	<i>gasuslu</i>	
PT:	Motu	<i>gatoi</i>	
PT:	Mekeo	<i>aoi</i>	
MM:	Nakanai	<i>hatotolu</i>	
MM:	Tangga	<i>katalu</i>	
MM:	Patpatar	<i>tulur</i>	

MM:	Simbo	<i>toruru</i>
SES:	Bugotu	<i>kidoru</i>
SES:	Gela	<i>tolu</i>
SES:	Tolo	<i>kolu-na</i>
SES:	Sa'a	<i>saolu</i>
SES:	Bauro	<i>aoru</i>
NCV:	Mota	<i>toliu</i>
NCV:	Paamese	<i>orelī(te)</i>
NCV:	Namakir	<i>ʔatol</i>
SV:	Ura	<i>n-ahli-</i>
SV:	Lenakel	<i>(noua-)n-ahlə-</i>
NCal:	Iaai	<i>wākuñ</i>
Mic:	Ponapean	<i>kutōr</i>
Mic:	Kiribati	<i>(pun)atoi</i>

cf. also:

Fij:	Rotuman	<i>kalofi</i>	(expected † <i>ʔafolu</i>)
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A word of more general reference, POc **puaq*, originally ‘fruit’, but generalised as a classifier for a wide range of more or less spherical objects, is sometimes used for eggs, but this may well be the result of repeated local extensions.

NNG:	Gitua	<i>pua</i>	‘egg’
NNG:	Lukep (Pono)	<i>pua-na</i>	‘egg’
PT:	Bwaidoga	<i>fou</i>	‘egg’
SES:	Arosi	<i>hua i kua</i>	‘fowl’s egg’
Pn:	Rennellese	<i>hua</i>	‘fruit, berry, egg’
Pn:	E Futunan	<i>fua ʔi moa</i>	‘hen’s egg’
Pn:	Māori	<i>hua</i>	‘fruit, egg’

Despite the great variety in the form and construction of birds’ nests (note PMic **fata* ‘platform, nest’ from POc **patar* ‘platform’, vol.1, p.57 and p.190), a common term can be reconstructed (sometimes stated as also applying to nests or dens of animals).

PEMP **niku(i)* ‘nest’⁴

POc **(n,ñ)iku~*nuki* ‘nest’

NNG:	Amara	<i>o-nuk</i>	
NNG:	Aria	<i>o-nuk</i>	
NNG:	Mapos Buang	<i>nwi-s</i>	‘nest, den’
PT:	Are	<i>nigu-na</i>	‘nest, den, hole’
PT:	Tawala	<i>nunu</i>	
PT:	Balawaia	<i>nuyi</i>	
PT:	Mekeo	<i>ni-na</i>	
MM:	Kara (East)	<i>niu</i>	
MM:	Nehan	<i>niu</i>	

⁴ Cognates in SHWNG languages include Mor *nibi*, *niwi*, Waropen *ni*, Biak *niw* (Anceaux 1961).

MM:	Maringe	<i>ñoku</i>
SES:	Bugotu	<i>ñiku</i>
SES:	Gela	<i>niku</i>
SES:	Kwaio	<i>nūʔi</i>
SES:	Tolo	<i>niku-na</i>
NCV:	Mota	<i>niyiu</i>
NCV:	Paamese	<i>a-nu, nūnu</i>

A PCP form is also reconstructable:

PCP **ova* ‘nest’

Fij:	Wayan	<i>ova</i>	‘nest of a bird’
Pn:	E Futunan	<i>ōfa(ŋa)</i>	‘nest’
Pn:	Samoa	<i>ōfa(ŋa)</i>	‘nest’
Pn:	Emae	<i>ofa(ŋa)</i>	‘nest of bird or animal’
Pn:	Māori	<i>ōfa(ŋa)</i>	‘nest’

The actions surrounding eggs and nests are less distinctively lexicalised. The verb corresponding to ‘lay’ is etymologically various (e.g. Lau *kʷala* ‘give birth, beget, lay an egg’, Bauan *vaka-lutu* ‘drop, lay (egg)’, Paamese *mūmoni* ‘make’ *mūmon orelīte* ‘lay an egg’), but note the following:

POc **tau(p)* ‘lay egg’

POc **taup-i-* ‘sit on eggs’

NNG:	Bing	<i>tāw</i>	‘lay egg’
MM:	Nakanai	<i>tau</i>	‘put, place, lay egg’
SES:	Gela	<i>taov-i</i>	‘sit on eggs’
		<i>taov-agi</i>	‘brood over’
SES:	Longgu	<i>taov-i(a)</i>	‘sit on and hatch’
NCal:	Iaai	<i>hau</i>	‘lay egg’

The action of incubating eggs by sitting on them is compared with that of covering and protecting the young in the following verb attributable to PEOc:

PEOc **ovi(s)*, **ovis-i-* (1) ‘brood, sit on eggs’; (2) ‘cover chicks with wings’

SES:	Bugotu	<i>ofī</i>	‘to sit on eggs, hatch’
SES:	Tolo	<i>ovi(a)</i>	‘to sit on and hatch’
Mic:	Kosraean	<i>apīs</i>	‘cover, hug, hold, protect under wings, brood’
Fij:	Wayan	<i>oviđi</i>	‘brood, sit on eggs; cover chicks with wings’
Fij:	Bauan	<i>oviđ(a)</i>	‘to brood, of hens; to cover up the chickens under her wings’

When the egg hatches, the words used are generally those for the breaking open of rigid containers (the coconut probably being the most familiar comparison), but no consistent etymon emerges.

The action of flying is as emblematic of birds as their possession of feathers and wings, and several verbs are associated with it (see also POc **kaba* ‘(N) wing, (v) flap wings’ above):

PMP **Rebek* ‘to fly’

POc **Ropok* ‘fly, jump’

Adm:	Loniu	<i>wɔh</i>	
NNG:	Kairiru	<i>-ruo</i>	
NNG:	Manam	<i>ro</i>	
NNG:	Yabem	<i>-lob</i>	
NNG:	Takia	<i>-rou</i>	
NNG:	Mengen (Poeng)	<i>lo</i>	‘fly, go’
PT:	Gapapaiwa	<i>rovo</i>	
PT:	Motu	<i>roho</i>	‘leap, skip, fly’
MM:	Bali	<i>rovoko</i>	
MM:	Nakanai	<i>lovo</i>	
MM:	Tolai	<i>rowo</i>	
MM:	Siar	<i>rofoi</i>	
SES:	Bugotu	<i>ðovo</i>	
SES:	Sa’a	<i>loho</i>	
NCV:	Mota	<i>rowo</i>	‘spring, leap, fly’
NCV:	Uripiv	<i>o-row</i>	‘fly, jump’
SV:	Lenakel	<i>ivək</i>	
Fij:	Wayan	<i>rō</i>	‘fly up, rise up through the air’ (expected † <i>rovo</i> ; cf. <i>nō</i> ‘sit, stay’ < <i>*nopo</i>)

POc **tap^(w)a* may perhaps have referred to gliding or soaring; the apparently contradictory meaning of ‘flap wings’ in some languages may represent contamination from POc **kaba* ‘flap wings’ (above).

POc **tap^(w)a* ‘glide, soar’

PT:	Gapapaiwa	<i>tapi</i>	‘flap’
MM:	Nakanai	<i>tapa-pa</i>	‘flap’
MM:	Madak	<i>rava</i>	‘fly’
MM:	Tolai	<i>ta-tap</i>	‘flap’
MM:	Halia (Haku)	<i>tapa</i>	‘fly’
MM:	Simbo	<i>ta-tava</i>	‘fly’
MM:	Maringe	<i>tava</i>	‘glide, soar with wings spread, hover’
SES:	Tolo	<i>ava</i>	‘to hover or glide’
NCal:	Nengone	<i>capa-capā</i>	‘flutter’
Fij:	Bauan	<i>taba-na</i>	‘wing’
Pn:	Hawaiian	<i>kaha</i>	‘to swoop, as a kite; to be poised, soar (as a bird)’
Pn:	Rarotongan	<i>taʔa</i>	‘glide, plane, skim, sail through the air’

POc **toki* ‘peck’ (also perhaps of fish nibbling at bait) (cf. **toki* ‘chop’, vol.1, p.250)

MM:	Patpatar	<i>tōk</i>	‘peck (food)’
SES:	Tolo	<i>tokia</i>	

PMic **toki* ‘bite, peck’ (Bender et al. 2003)

Mic:	Sonsorolese	<i>teyεa</i>	‘to peck, as birds’
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Fij: Wayan *toki-a*

Polynesian reflexes show *ŋ* for expected *k*:

Pn: Samoan *toŋi*

Pn: Nukuoro *toŋi* 'peck at'

Pn: Māori *toŋi* 'peck, nibble'

3 Bird names

There is a strong consensus among recent researchers locating the Proto Oceanic homeland in Northwest Melanesia, with the island of New Britain a focus of probabilities. I will follow this view insofar as it helps give a perspective on the dimensions of the problem of reconstructing this particular lexical field. In what follows I will use the term 'homeland' to refer to New Britain and its neighbouring islands. The birds among which referents for POc reconstructions will be sought in this study are those which are residents of or regular visitors to the Bismarck Archipelago, as described in recent handbooks (Coates 1985, 1990; Coates & Peckover 2001). This gives a total of slightly more than 200 species belonging to 126 genera, 77 of them monotypic.

The reconstructions presented below do not comprise all or even most of a plausible avian terminology of Proto Oceanic. Entire families of birds which were almost certainly known to the POc speakers are unrepresented here, because the small number of terms so far recorded for living Oceanic languages do not yield up any useful cognate sets. Examples are the grebes (Podicipedidae), pelicans (Pelecanidae), cormorants (Phalacrocoracidae), ibises (Threskiornithidae), nightjars (Caprimulgidae), flowerpeckers (Dicaeidae), waxbills (Estrildidae) and drongos (Dicuridae). This lack, in turn, is primarily a result of the insufficiency of the data, particularly for languages of Northwest Melanesia, where the avifauna is the richest. The situation has improved, but only slightly, since my previous study (Clark 1994). There is still an almost complete lack of really comprehensive studies.

It may be useful, nevertheless, to have some idea of what such a taxonomy would have looked like. In my earlier paper I reasoned by analogy from two detailed studies from societies close to the Oceanic region, though both non-Austronesian in language: Majnep & Bulmer (1977) on Kalam of the New Guinea highlands, and Taylor (1990) on Tobelo of north Halmahera. Both studies found a total of about 200 lexemes for avian taxa. The typical taxon corresponds to a Linnaean genus, though as a substantial proportion of genera were monotypic (represented by a single species) within the area studied, there is a certain ambiguity between genus and species. Genus-level taxon labels in Kalam, for instance, would include *ccp* covering the Australian Goshawk (*Accipiter fasciatus*) and Black-mantled Goshawk (*A. melanochlamys*), *kwwt* for both the Amboina Cuckoo dove (*Macropygia amboinensis*) and the Black-billed Cuckoo dove (*M. nigrirostris*), *mmañp* labelling both the Glossy Swiftlet (*Collocalia esculenta*) and the Mountain Swiftlet (*C. hirundinacea*), *plolom* both the Mountain Yellow-billed Kingfisher (*Halcyon megarhyncha*) and the Sacred Kingfisher (*H. sancta*), and *walkobneŋ* both the Black-fronted White-eye (*Zosterops minor*) and the Mountain White-eye (*Z. novaeguineae*). In some cases, conventional distinguishing expressions exist to discriminate between the two species, for example. *ccp mseŋ-ket* 'Australian Goshawk' (*mseŋ-ket* 'open country') versus *ccp kamay-ket* 'Black-mantled Goshawk' (*kamay-ket* 'beech tree sp.').

On the other hand, some Kalam taxa correspond to Linnaean groups larger than the genus, and some cut across the terminology altogether, recognizing convergent similarities: *spsep* refers both to the Mountain Pygmy Parrot (*Micropsitta bruijini*) and the Pink-faced Nuthatch (*Daphoenositta miranda*), *sskl* refers to both Whitehead's Swiftlet (*Collocalia whiteheadi*) and the Pacific Swallow (*Hirundo tahitica*). (Cf. POc **kabakabal* in §5.12.)

Most birds produce some sound audible to humans, whether territorial song, flocking calls or alarm cries, and often this is distinctive enough to be recognised as emblematic of the bird itself. The transcoding of bird vocalizations into human speech sounds is a universal phenomenon, and birds are probably onomatopoetically named more than any other class of living things. In theory this can pose an obstacle to the comparative method, if the independent application of an onomatopoetic name to the same bird in different languages produces pseudo-cognates. However, the more remotely related the two languages, the less likely such pairs of names are to follow regular sound correspondences. The approach taken here will be to accept exact cognate sets as genuine, but cases where there are repeated irregularities despite similarity of phonetic form will be taken as, at least, suspect for reconstruction purposes.

In theory we would like to be able to say how POc speakers would have named each species of bird they were familiar with. Some reasons why this is not possible at the present state of knowledge have already been reviewed. There is also the fact that, even if we take the location and date of the POc-speaking community as fairly precisely known, the composition of the avifauna at that place and time is by no means so certain. The distribution of bird species is a changing set of circumstances, affected both by expansion of successful species and by extinction of others. In practice all we have to go on (except for some scattered archaeological evidence) is the present situation. But even in a situation where several reasonably good cognate sets are available, which could in theory be assigned to several species present in the Oceanic homeland, the assignment may be difficult since our data is weakest precisely in the area where the fauna is richest.

Below I present nearly 200 cognate sets, of which about 80 are attributed to Proto Oceanic and the remainder to various interstages. Following a discussion of the domestic fowl, the families are arranged into three large groups: the non-passerine land and fresh-water birds; the passerines; and the sea and shore birds. A typical local inventory contains roughly equal numbers of species in these three groups. (Bregulla 1992 on Vanuatu, for example, has 36 passerine species, 45 sea birds and 40 others.) All scientific and 'common' English names have been normalised to follow the checklist of Howard & Moore (1991).

4 The domestic bird: *Gallus gallus*

The Red Jungle Fowl, (*Gallus gallus*) spread as a domesticate along with Oceanic speakers throughout almost all the Pacific islands. There does not seem to be any clear lexical distinction between domestic and feral birds, though descriptors may be added, as in Samoan *moa ʔāivao* 'wild fowl' (cf *vao* 'bush, jungle'). The glosses 'chicken' and 'fowl' have been taken as equivalent.

A number of Oceanic languages use a word for fowl which is most commonly the generic term for 'bird'.

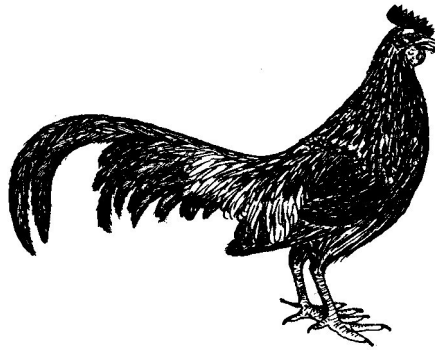


Figure 6.1 *Gallus gallus*, Red Jungle Fowl

PMP **manuk* ‘bird, fowl’

POc **manuk* ‘Red Jungle-fowl, *Gallus gallus*’

Yap:	Yapese	<i>ni-mēn</i>	
NNG:	Manam	<i>maŋ</i>	bird, chicken
NNG:	Mangap	<i>man</i>	
SV:	Kwamera	<i>menu</i>	‘bird, prototypically fowl’
SV:	Lenakel	<i>menuk</i>	
Mic:	Carolinian	<i>malix</i>	(loan from Palauan)
Mic:	Namoluk	<i>malok</i>	(loan from Palauan)
Mic:	Ponapean	<i>malek(enwel)</i>	(loan from Palauan)

Note that Bender et al. (2003:327) consider the Micronesian forms to be loans from Chamorro *mannok* ‘chicken’.

A more widely distributed set of terms for the fowl is clearly an imitative term for the distinctive call of the male bird. A pattern of consonants occurs which could represent POc **k-k-r-k*, though the vowels are not consistent and one or other of the consonants may not appear. Such distant semblances as Japanese *kokekokkō* and French *cocorico* ‘cock-a-doodle-doo’ suggest that this sequence may have, contrary to appearances, something natural about it. And yet, the shift of these words from sound-imitative to referential (including the female) cannot have taken place many times independently. I therefore hesitantly offer a reconstruction. However, it is noteworthy that **k* in this term is never lenited (to *ɣ*, *ʔ* etc) in the many languages where this is a regular change. This presumably reflects its onomatopaeic origin.

POc **kokorako* ‘fowl, *Gallus gallus*, esp. male’

Adm:	Loniū	<i>koha</i>	
Adm:	Nyindrou	<i>kakaro (m^wan)</i>	‘rooster’
NNG:	Labu	<i>kakaru</i>	
NNG:	North Watut	<i>kokora</i>	
NNG:	Bariai	<i>kokako</i>	
NNG:	Kove	<i>kok(o)ako, kahako</i>	

NNG:	Lusi	<i>kok(o)ako</i>	
NNG:	Takia	<i>kirek</i>	
NNG:	Kilenge	<i>koako</i>	
NNG:	Mouk	<i>kuako</i>	
NNG:	Lamogai	<i>kuako</i>	
NNG:	Mengen (Poeng)	<i>kukulega</i>	‘bird similar to chicken...’
PT:	Bwaidoga	<i>kakaleko, kakeliko</i>	‘the domestic fowl’
PT:	Are	<i>kokorereko</i>	
PT:	Wedau	<i>kokorereko</i>	‘rooster’
PT:	Kilivila	<i>rekorek^{wa}</i>	
PT:	Muyuw	<i>kalkólek, lekólek</i>	
PT:	Bartle Bay	<i>kokorereko</i>	
PT:	Hula	<i>kokoroku</i>	
PT:	Mekeo	<i>ʔoʔolo</i>	
PT:	Motu	<i>kokoroku</i>	
MM:	Nakanai	<i>kureko</i>	
MM:	Tolai	<i>kəkaruk, karegi, kareki</i>	
MM:	Petats	<i>kekeleau</i>	
MM:	Mono-Alu	<i>kokolei</i>	
MM:	Babatana	<i>kokorako</i>	‘rooster’
MM:	Nduke	<i>kokorako</i>	
MM:	Roviana	<i>kokorako</i>	
MM:	Simbo	<i>kokorako</i>	
MM:	Maringe	<i>k^hokorako</i>	
SES:	Bugotu	<i>kokiroko</i>	‘cock; to crow’
SES:	Longgu	<i>kokoroko</i>	‘rooster’
SES:	To’aba’ita	<i>kūkua</i>	
SES:	Lau	<i>karaikoa, kakara i koa</i>	
SES:	Langalanga	<i>kakaraikua</i>	
SES:	’Are’are	<i>kua, kukua, kuakua</i>	
SES:	Kwara’ae	<i>karai</i>	
SES:	Kwaio	<i>kokorako</i>	
SES:	Kwai	<i>kakarai</i>	
SES:	Sa’a	<i>kue</i>	
Mic:	Sonsorolese	<i>gɔgɔ, kɔkɔ</i>	

The possible Polynesian reflex of the third term has undergone a significant semantic shift.

POc **toqa* ‘fowl’

NNG:	Kairiru	<i>(m^{yan}) tok</i>	<i>(m^{yan} ‘bird’)</i>
MM:	Teop	<i>toa</i>	‘small water fowl’
NCV:	Mota	<i>toa</i>	
NCV:	Lakon	<i>tɔ</i>	
NCV:	Raga	<i>toa</i>	
NCV:	Matantas	<i>na-toa</i>	

NCV:	Kiai	<i>toa</i>	
NCV:	Atchin	<i>na-tò</i>	
NCV:	Neve'ei	<i>no-to</i>	
NCV:	Avava	<i>oto</i>	
NCV:	Big Nambas	<i>n-tu, ni-tū</i>	
NCV:	Nese	<i>na-to</i>	
NCV:	Labo	<i>ne-te</i>	
NCV:	SW Bay	<i>ne-teu</i>	
NCV:	Naha'ai (Malfaxal)	<i>nō-to</i>	
NCV:	SE Ambrym	<i>tuto</i>	
NCV:	Paamese	<i>(a)to</i>	
NCV:	Lewo	<i>towa</i>	
NCV:	Nguna	<i>tōa</i>	
SV:	Ura	<i>urwa</i>	
SV:	Sye	<i>ne-two</i>	
NCal:	Nêlêmwa	<i>ko</i>	
NCal:	Caaàc	<i>ho, jo</i>	
NCal:	Jawe	<i>ho</i>	
NCal:	Cèmuhi	<i>jà</i>	
NCal:	Paicî	<i>ja</i>	
NCal:	Xârâcùù	<i>dō</i>	
NCal:	Drubea	<i>tá</i>	
NCal:	Iaai	<i>xoto</i>	
NCal:	Dehu	<i>gutu</i>	
NCal:	Nengone	<i>titewe</i>	
Fij:	Bauan	<i>toa</i>	
Pn:	Tongan	<i>toʔa</i>	'courageous, hero, strong man'
Pn:	E Futunan	<i>(moa)toʔa</i>	'cock'
Pn:	Tikopia	<i>toa</i>	'strong man, warrior, fighting spirit'
Pn:	Marquesan	<i>toa</i>	'brave, strong, warrior; male'

The common Polynesian word for the fowl has no certain external cognates, though it has apparently been borrowed rather far afield. However, it is possible that Wayan and Bauan *mō* are cognate with PPn **moa*, as PCP **oa* often becomes *ō*, at least in Western Fijian. If they are, then PCP **moa* is reconstructable, but with uncertain denotation.

PPn **moa* 'fowl'

Pn:	Tongan	<i>moa</i>	
Pn:	Niuean	<i>moa</i>	
Pn:	E Futunan	<i>moa</i>	
Pn:	Samoan	<i>moa</i>	
Pn:	Tuvalu	<i>moa</i>	
Pn:	Nukuoro	<i>moa</i>	'bird sp.'
Pn:	Tahitian	<i>moa</i>	
Pn:	Rarotongan	<i>moa</i>	
Pn:	Māori	<i>moa</i>	'Moa (<i>Dinornis</i>) and other extinct spp.'

Possible borrowings from Polynesian include:

Yap:	Yapese	<i>moeʔ</i>	
NCal:	Ajië	<i>meye</i>	
NCal:	Tinrin	<i>meɔ</i>	
Mic:	Kiribati	<i>moa</i>	
Fij:	Wayan	<i>mō</i>	‘rail sp., probably <i>Porzana tabuensis</i> ’
Fij:	Bauan	<i>mō</i>	‘Sooty Crane, <i>Porzana tabuensis</i> ’
Fij:	Rotuman	<i>moa</i>	

A common observation about animal taxonomy is that terminology for domesticated species will be more detailed than for most wild species—specific names for sexes, ages and varieties are to be expected. This does not seem to be the case for the fowl in Proto Oceanic.

One term, reconstructed as PMP **qupa* ‘hen, egg-laying chicken’, appears to have Oceanic reflexes only in Polynesian and Rotuman (the latter a borrowing):

PMP **qupa* ‘hen, egg-laying chicken’ (ACD)

POc **qupa* ‘hen’

Pn:	E Futunan	<i>ʔufa</i>	‘young hen, pullet’
Pn:	Rapanui	<i>uha</i>	‘hen; female of animals’

cf. also:

Fij:	Rotuman	<i>ʔufa</i>	(borrowed from Polynesian source)
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The male of the species is most commonly simply denoted by ‘male fowl’ (Manam *may moane*, Motu *kokoroku maruanena*, ‘Are’are *kua māne*), and chicks as ‘child of fowl’ (Motu *kokoroku natuna*, Cèmuhî *nahi-ja*, Bauan *luve ni toa*).

5 Non-passerine land and fresh water birds

Though in species numbers they are roughly a third of the total, this group of families accounts for well over half the cognate sets and reconstructions presented here. Land birds are likely to be seen by everyone in the community, and not just those who go to sea. The non-passerines are on the whole larger and more conspicuous than the passerines. They are therefore likely to have names known by everyone. They are also objectively more diverse as a group, and hence more likely to be recognised and lexicalised (Boster, Berlin & O’Neill 1986: 577-578).

5.1 Cassowaries (Casuariidae)

A single species of this family of huge flightless birds, the Dwarf Cassowary (*Casuarus bennetti*), lives in the Oceanic homeland. Although cassowaries do not extend even into the Solomons, enough reflexes exist in languages of the NNG, PT and MM groups to support the reconstruction below. Attribution of such a form to POc is further supported by numerous cognates in languages to the west, e.g. Biak (SHWNG) (*man*)*swar*, Kaiwai (CMP) *asawar* (Anceaux 1961).

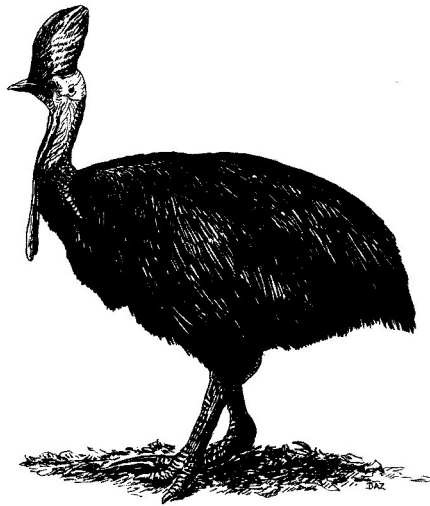


Figure 6.2 *Casuarius bennetti*, Dwarf Cassowary

PCEMP *kasawari ‘cassowary’

POc *kasuari ‘Dwarf Cassowary, *Casuarius bennetti*’ (Milke 1965)

NNG:	Kairiru	<i>qaiwar</i>
NNG:	Manam	<i>kaluari</i>
NNG:	Tumleo	<i>sauwil</i>
NNG:	Kela	<i>kusua</i>
NNG:	Yabem	<i>keʔsewa</i>
NNG:	Musom	<i>suwe</i>
NNG:	Aribwatsa	<i>subeʔ</i>
NNG:	Amara	<i>akaiuor</i>
NNG:	Mangap	<i>kaiwor</i>
NNG:	Tami	<i>kisiwa</i>
PT:	Suau	<i>ʔasuari</i>
PT:	Are	<i>kasuare</i>
PT:	Nimoa	<i>hasuari</i>
MM:	Nakanai	<i>textitkehu</i>
MM:	Lihir	<i>kosol</i>

5.2 Herons (Ardeidae)

The herons of the homeland include three species of large herons or egrets of the genus *Egretta* as well as the Green-backed Heron (*Butorides striatus*), the Nankeen Night Heron (*Nycticorax caledonicus*) and two bitterns (*Ixobrychus* spp.). Most cognate sets refer to the large and conspicuous *Egretta* herons, which may have been the basis for a generic term.

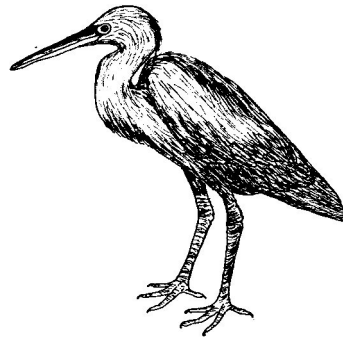


Figure 6.3 *Egretta sacra*, Reef Heron

POc **kao(i)* ‘heron, probably *Egretta* sp.’

Yap:	Yapese	<i>?kāw, ?kow</i>	‘heron’
Adm:	Nyindrou	<i>kaoi</i>	‘heron’
NNG:	Mengen (Poeng)	<i>gao</i>	‘reef heron’
PT:	Gapapaiwa	<i>kou</i>	‘Reef Heron, <i>Egretta sacra</i> ’
MM:	Patpatar	<i>kou</i>	‘rufous night heron’
MM:	Sursurunga	<i>kau</i>	‘taxon including Zebra Heron and Nankeen Night Heron’
MM:	Halia	<i>koei</i>	‘crane’
		<i>ko-koyei</i>	‘ <i>Egretta sacra</i> ’
MM:	Banoni	<i>koko</i>	‘ <i>Egretta sacra</i> (dark morph)’
MM:	Nduke	<i>kou</i>	‘Great Egret, <i>Egretta alba</i> ’
MM:	Simbo	<i>kau</i>	‘bird sp. similar to crane’
SES:	Longgu	<i>?ao</i>	‘reef heron’
SES:	’Are’are	<i>ao</i>	‘black heron’
		<i>ao eke</i>	‘white heron’
SES:	Uki ni Masi	<i>yao</i>	‘ <i>Egretta sacra</i> ’
Mic:	Sonsorolese	<i>ya-yaɔ(t)</i>	‘heron’
Mic:	Chuukese	<i>kawakaw</i>	‘heron (general name)’
Mic:	Ponapean	<i>kowe(lik)</i>	‘heron-like bird sp.’
Fij:	Bauan	<i>(visa)kō</i>	‘Green-backed Heron, <i>Butorides striatus</i> ’
Pn:	Nukuoro	<i>kava</i>	‘ <i>Egretta sacra</i> ’
Pn:	Takuu	<i>kao</i>	‘small thin wading bird resembling a heron’
Pn:	Tikopia	<i>keo</i>	‘ <i>Egretta sacra</i> ’
Pn:	Māori	<i>kao(riki)</i>	‘Little Bittern, <i>Ixobrychus minutus</i> ’

It appears that **kao* may have been a generic term for herons in PCP. Both Fijian and Polynesian introduce new terms (see below) for *Egretta*, and **kao* mainly survives in reference to less conspicuous species. Among Central Pacific reflexes only the Takuu and Māori reflexes may be considered unproblematic. The Nukuoro word is probably borrowed from a Micronesian language.

POc **kaopa* ‘heron, probably *Egretta* sp.’

Adm:	Drehet	<i>kɔp</i>	‘heron sp.’
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SES:	Gela	<i>kaova</i>	‘egret’
SES:	Tolo	<i>haova</i>	‘a long-legged, long-necked coastal bird’
SES:	Arosi	<i>kaop^{wa}</i>	‘egret’
SES:	Bauro	<i>yaoha</i>	‘Reef Heron, <i>Egretta sacra</i> ’
NCV:	Mota	<i>kaova</i>	‘an egret, herodias’
NCV:	SE Ambrym	<i>koh</i>	‘ <i>Egretta sacra</i> ’
NCal:	Nêlêmwa	<i>kôôk,</i> <i>kôôva</i>	‘ <i>Egretta sacra</i> ’
NCal:	Fwâi	<i>kôôva</i>	‘ <i>Egretta sacra</i> ’
NCal:	Paicî	<i>kɔɔ</i>	‘ <i>Egretta sacra</i> ’
NCal:	Xârâcùù	<i>kaūk^{wa}</i> <i>gɔkɔɔ</i>	‘white heron sp.’ ‘ <i>Egretta sacra</i> ’
Pn:	Rennellese	<i>you</i>	‘Black Bittern, <i>Ixobrychus flavicollis</i> ’
Pn:	Pileni	<i>kova</i>	‘heron, egret’

Both Polynesian Outlier names are presumably borrowed from SE Solomonic languages.

TM:	Buma	<i>ove(ne)</i>	‘Reef Heron, <i>Egretta sacra</i> ’
PNCV <i>*qova</i> ‘heron, probably <i>Egretta</i> sp.’			
NCV:	Raga	<i>ova</i>	‘ <i>Egretta sacra</i> (dark phase)’
NCV:	Kiai	<i>ova</i>	‘heron’
NCV:	Lewo	<i>yeva</i>	‘heron’
NCV:	Namakir	<i>ʔov</i>	‘reef heron’
NCV:	Nakanamanga	<i>ōva</i>	‘reef heron (dark phase)’

The relation among the three cognate sets above is not entirely clear. The ordering is based on their successively narrower distribution, from which one might conjecture that **kao* was the original POc term, **kaopa* an extension of this, and **qopa* a truncation of **kaopa* restricted to North–Central Vanuatu and its immediate neighbour Temotu area. The above cognate complex is almost unrepresented in the Papuan Tip group, which seems to replace it with the following:

PPT <i>*boqe</i> ‘heron, <i>Egretta</i> sp.’			
PT:	Tubetube	<i>boi</i>	‘reef heron’
PT:	Wagawaga	<i>boi</i>	‘Reef Heron, <i>Egretta sacra</i> ’
PT:	Iduna	<i>foi</i>	‘Intermediate Egret, <i>Egretta intermedia</i> ’
PT:	Kilivila	<i>boi</i>	‘heron’
PT:	Muyuw	<i>bouy</i>	‘white crane’
PT:	Balawaia	<i>boge</i>	‘white heron’
PT:	Hula	<i>poge</i>	‘heron’
PT:	Lala	<i>boe</i>	‘heron’
PT:	Mekeo	<i>foe</i>	‘heron, egret’

Two of the identifications below are problematic: the Pied Heron, *Egretta picata*, is a mainland species not known to occur in the Bismarcks, and the Grey Heron, *Ardea cinerea*, does not occur in the New Guinea area at all.

POc **b^waro* ‘heron, probably *Egretta* sp.’

NNG:	Yabem	<i>b^waloʔ</i>	‘heron’
NNG:	Bing	<i>buar-buar</i>	‘Pied Heron, <i>Egretta picata</i> ’
NNG:	Dami	<i>bar</i>	‘heron’
NNG:	Gedaged	<i>(ma)boʔ</i>	‘Grey Heron, <i>Ardea cinerea</i> ’
PT:	Motu	<i>baira</i>	‘pure white heron’
MM:	Patpatar	<i>bol</i>	‘great egret’
MM:	Ramoaaina	<i>bar</i>	‘Reef Heron, <i>Egretta sacra</i> ’
SES:	Longgu	<i>(koivo) baro</i>	‘white heron sp.’
NCV:	Neve’ei	<i>no-bol (yevyev)</i>	‘reef heron’

cf. also:

Fij:	Rotuman	<i>pelō</i>	‘ <i>Egretta sacra</i> ’
Fij:	Bauan	<i>belō</i>	‘ <i>Egretta sacra</i> ’

A more localised group of cognates in Vanuatu show some resemblance to the above:

PSV **b^wan(ie)* ‘heron’ (Lynch)

SV:	Ura	<i>(yay)pon</i>	‘egret’
SV:	Sye	<i>(yay)pon</i>	‘egret’
SV:	Kwamera	<i>pan</i>	‘Reef Heron, <i>Egretta sacra</i> ’
SV:	Lenakel	<i>p^wan</i>	‘crane’
SV:	Anejoñ	<i>n-p^wañ</i>	‘ <i>Ardea</i> spp.’ [sc. <i>Egretta</i>]

cf. also:

NCV:	Letemboi	<i>na-li^mbanua</i>	‘heron’
NCV:	Labo	<i>nə-^mbunuoj</i>	‘heron’
NCV:	SW Bay	<i>(li)^mbanui</i>	‘heron’

Additional clear but highly localised names in the Solomons, Micronesia and Polynesia also centre around *Egretta*. POc **sou* below is suspect as a POc reconstruction as it only occurs in the Solomons. However, Numbami (NNG) *saole* ‘egret’ may be cognate. If it is, then the POc form was perhaps **saol* or **saul*, but this in turn leaves Numbami final *-e* for expected *†-a* unaccounted for, as well as the lack of the final consonant and echo vowel from expected Marovo *†coulu*, Nduke *†houlu*.

POc **sou* (?) ‘heron’

MM:	Torau	<i>sou</i>	‘Reef Heron, <i>Egretta sacra</i> ’
MM:	Marovo	<i>cou</i>	‘ <i>Egretta sacra</i> ’
MM:	Nduke	<i>hou</i>	‘ <i>Egretta sacra</i> ’
SES:	Gela	<i>sou</i>	‘heron’
SES:	Tolo	<i>cou</i>	‘bird sp.’
SES:	Malango	<i>cou</i>	‘Nankeen Night Heron, <i>Nycticorax caledonicus</i> ’
SES:	Longgu	<i>sou</i>	‘heron’
SES:	Lau	<i>tou</i>	‘crane’
SES:	Kwaio	<i>tou</i>	‘egret’
SES:	’Are’are	<i>tou</i>	‘night heron’
SES:	Sa’a	<i>tou</i>	‘night heron’

Proto Central Micronesian **karau* ‘*Egretta sacra*’ (Bender et al. 2003)

Mic:	Kiribati	<i>kāi</i>	‘ <i>Egretta sacra</i> ’
Mic:	Marshallese	<i>keke</i>	‘reef heron (white phase)’
Mic:	Mokilese	<i>kɔɔ</i>	‘reef heron’
Mic:	Sonsorolese	<i>yayai(cɔɔ)</i>	‘black heron’
Mic:	Namoluk	<i>örö</i>	‘Reef Heron, <i>Egretta sacra</i> ’

Proto Chuukic **karai* ‘heron’

Mic:	Puluwatese	<i>yære(n)</i>	‘heron’
Mic:	Woleaian	<i>geræ</i>	‘bird sp. with long neck’
Mic:	Chuukese	<i>ara</i>	‘heron’

cf. also:

Pn:	Rennellese	<i>kagau</i>	‘ <i>Egretta sacra</i> ’
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The Rennellese term seems to agree with the Central Micronesian reconstruction, but borrowing from this direction would be unexpected. No heron terms like this appear to exist in the Southeast Solomons.

PPn **matuku* ‘Reef Heron, *Egretta sacra*’

Pn:	Tongan	<i>motuku</i>	
Pn:	Niuean	<i>motuku</i>	
Pn:	E Futunan	<i>amatuku</i>	
Pn:	Samoaan	<i>matuʔu</i>	
Pn:	Tuvalu	<i>matuku</i>	
Pn:	K’marangi	<i>matuku</i>	
Pn:	Takuu	<i>matuku</i>	
Pn:	Sikaiana	<i>motuku</i>	
Pn:	Ifira-Mele	<i>matuku(tea)</i>	‘white heron’, <i>tea</i> ‘white’)
Pn:	Pukapukan	<i>matiku</i>	
Pn:	Marquesan	<i>matuku</i>	
Pn:	Rarotongan	<i>mātuku</i>	‘a small dark-grey heron which frequents the seashore’ (Savage)
Pn:	Māori	<i>matuku</i>	‘ <i>Egretta sacra</i> and other heron spp.’

Compare, with unexpected referents:

Pn:	Niuean	<i>motuku</i>	‘Bristle-thighed Curlew, <i>Numenius tahitiensis</i> ’
Pn:	Rennellese	<i>matuku</i>	‘a kind of <i>gupe</i> pigeon, perhaps the female’

Proto Central Eastern Polynesian **kautuku*~**kootuku* ‘heron sp.’

Pn:	Hawaiian	<i>ʔaukuʔu</i>	‘Black-crowned Night Heron, <i>Nycticorax nycticorax</i> ’
Pn:	Mangarevan	<i>kotuku</i>	‘Reef Heron, <i>Egretta sacra</i> ’
Pn:	Tahitian	<i>ʔōtuʔu</i>	‘ <i>Egretta sacra</i> ’
Pn:	Rarotongan	<i>kōtuku</i>	‘ <i>Egretta sacra</i> ’
Pn:	Māori	<i>kōtuku</i>	‘Great Egret, <i>Egretta alba</i> ’
Pn:	Māori	<i>kautuku</i>	‘Australian Bittern, <i>Botaurus poiciloptilus</i> ’

The East Polynesian forms prefixed with **kō-* fall into a large class of nouns so reshaped in this subgroup. However, the Hawaiian and Māori terms with **kau-* suggest the possibility of influence of the **kao* term reconstructed above.

Compared with extensive cognate sets for the *Egretta* herons, only two small sets appear to denote the Night Herons:

POc **ŋako* ‘Night Heron, *Nycticorax* sp.’

Adm:	Loniū	<i>ñakō</i>	‘bird sp., sings at night, heralds death, possibly night heron or curlew’
NNG:	Musom	<i>ŋoku</i> ^(mbuŋ)	‘gray or black heron’
NNG:	North Watut	<i>ŋako</i> ^(tof)	‘crane’
PT:	Motu	<i>noko</i>	‘heron’

PNCal **tila* ‘night heron, *Nycticorax* sp.’

NCal:	Nêlêmwa	<i>r^hēlā</i>	‘Nankeen Night Heron, <i>Nycticorax caledonicus</i> ’
NCal:	Ajië	<i>sira</i>	‘mangrove heron’
NCal:	Tinrin	<i>ṭîrā</i>	‘grey night heron’
NCal:	Xârâcùù	<i>sîrā</i>	‘ <i>Nycticorax caledonicus</i> ’

5.3 Ducks (Anatidae)

The Pacific Black Duck (*Anas superciliosa*) is the most common duck of the Oceanic region, but the Grey Teal (*Anas gibberifrons*) is also present in the homeland, as are two species of Whistling Ducks (*Dendrocygna* spp.), and various other species of this family are known as migrants. There is no evidence of domestication of any duck species in pre-European Oceania. Many languages use a separate lexical item for the introduced domesticates, as Samoan *pato* ‘domestic duck’ (from Spanish), *toloa* ‘wild duck’. Very few descriptions offer glosses more precise than ‘duck’ or ‘wild duck’. However, Iduna *geluluva* is explicitly stated to cover both species of *Anas* mentioned above, and Nêlêmwa *kerorōp* includes both these as well as the Mallard, *A. platyrhynchos*). There may be a terminological agreement between Caaàc and Fijian (Lomaivitilevu) in which the Whistling Duck is described as ‘red duck’ (Caaàc *nīaŋ mīa*, Fijian *gā-damu*).

PMP **ŋaRaq* ‘wild duck’ (Blust 2002)

POc **ŋaRa* ‘duck’

Adm:	Loniū	<i>ŋay</i>	‘bird sp., floats on surface of water, possibly duck or booby’
Adm:	Nyindrou	<i>ña</i>	‘duck; shag’
PT:	Wedau	<i>ŋara</i>	‘duck; shag’
MM:	Banoni	<i>nāra</i> ^(ka)	‘Pacific Black Duck, <i>Anas superciliosa</i> ’
MM:	Torau	<i>nara</i>	‘ <i>Anas superciliosa</i> ’
MM:	Roviana	<i>ŋara</i>	‘wild duck’
SES:	Uki ni Masi	<i>(ʔa)ŋara</i>	
SES:	Arosi	<i>(ka)ŋara</i>	
		<i>ŋara</i> <i>(i suʔu)</i>	<i>(suʔu</i> ‘lake, swamp’)

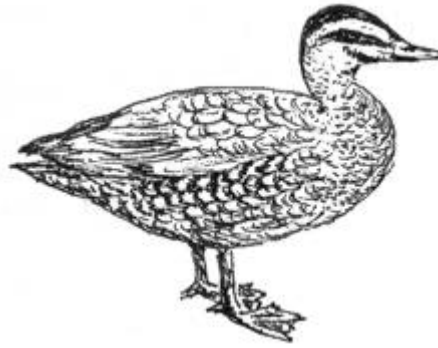


Figure 6.4 *Anas superciliosa*, Pacific Black Duck

SV:	Anejoñ	<i>n-ŋa,</i> <i>ŋar(ohos)</i>	‘possibly <i>Porphyrio</i> sp.’ (John Lynch, pers. comm.) ‘possibly <i>Porphyrio</i> sp.’ (John Lynch, pers. comm.)
PMic	<i>*ŋāŋā</i> ‘sea bird, duck’		
Mic:	Carolinian	<i>ŋāŋa</i> ⁵	
Mic:	Satawal	<i>ŋāŋa</i>	
Mic:	Woleai	<i>ŋāŋā</i>	
Fij:	Bauan	<i>ŋā</i>	

The following possible Māori reflex refers to a different waterfowl, but the formal development would be regular. (The grebe is presently found only in the South Island, where Māori **ŋ > k*.)

Pn:	Māori (South Island)	<i>kā(mana)</i>	Great Crested Grebe, <i>Podiceps cristatus</i>
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The following reconstruction is a metathetic variant of the above, apparently a local development in SE Solomonic and Micronesian.

PEOc **Raŋa* ‘duck’

SES:	Gela	<i>(ɣaya)raŋa</i>	‘a duck’
SES:	Tolo	<i>(ha)raŋa</i>	‘wild duck’
SES:	To’aba’ita	<i>(ʔāʔa)raŋa</i>	
SES:	Kwaio	<i>(ʔaʔa)laŋa</i>	‘Pacific Black Duck, <i>Anas superciliosa</i> ’
SES:	’Are’are	<i>(araʔa)rana</i>	‘wild duck’
SES:	Sa’a	<i>araŋa</i>	‘wild duck’
Mic:	Namoluk	<i>raŋ</i>	‘Spotbill Duck, <i>Anas poecilorhyncha</i> ’
Mic:	Marshallese	<i>ɽ^uaŋ</i>	‘wild duck’
		<i>ɽ^uoŋa(npat)</i>	‘ <i>Anas</i> spp.’ (pat ‘swamp’)

Probably borrowed from a SE Solomonic language:

MM:	Marovo	<i>araŋa</i>	‘ <i>Anas superciliosa</i> ’
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⁵ Note that Jackson & Marck (1991) consider Carolinian *ŋāŋa* a loan from Chamorro *ŋaŋa?* ‘duck’.

A final local development of this same group, again with metathesis:

Proto South Melanesian **l(i)an* ‘duck’ (Lynch)⁶

SV:	Kwamera	<i>ia-réŋ</i>	‘duck (indigenous)’
NCal:	Caaàc	<i>nīaŋ</i>	‘duck’
NCal:	Tinrin	<i>nĩã</i>	‘duck’
NCal:	Xârâcùù	<i>nĩã</i>	‘ <i>Anas</i> spp.’
NCal:	Iaai	<i>eŋ</i>	‘duck’

PPn **toloa* replaces **ŋaRa* as the generic term for ‘duck’.

PPn **toloa* ‘duck’

Pn:	Tongan	<i>toloa</i>	‘Pacific Black Duck, <i>Anas superciliosa</i> ’
Pn:	E Futunan	<i>toloa</i>	‘Spotbill Duck, <i>Anas poecilorhyncha</i> ’
Pn:	Samoa	<i>toloa</i>	‘ <i>Anas superciliosa</i> ’
Pn:	Tokelauan	<i>toloa</i>	‘ <i>Anas superciliosa</i> ’
Pn:	Tuvalu	<i>toloa</i>	‘Mallard, <i>Anas platyrhynchos</i> , and Northern Shoveller, <i>A. clypeata</i> ’
Pn:	Pukapukan	<i>toloa</i>	‘ <i>Anas superciliosa</i> ’
Pn:	K’marangi	<i>tolō</i>	‘duck sp.’
Pn:	Tikopia	<i>toroa</i>	‘ <i>Anas superciliosa</i> ’
Pn:	Anutan	<i>toroa</i>	‘duck’
Pn:	W Uvean	<i>toloa</i>	‘ <i>Anas superciliosa</i> ’
Pn:	Hawaiian	<i>koloa</i>	‘ <i>Anas</i> spp.’

A probable Polynesian borrowing:

TM:	Buma	<i>teloloa</i>	‘ <i>Anas superciliosa</i> ’
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A number of other Polynesian and Fijian languages have bird names formally cognate with the above, but referring to shore and sea birds. (A number of these innovations are in the languages of atolls, where ducks are rare or non-occurrent owing to the absence of surface fresh water.):

Fij:	Kadavu	<i>torō, tarō</i>	‘ <i>Sula</i> spp.’
Fij:	Wayan	<i>torō</i>	‘probably Frigatebird, <i>Fregata</i> spp.’
Pn:	Nukuria	<i>koroa</i>	‘Whimbrel, <i>Numenius phaeopus</i> ’
Pn:	Takuu	<i>taroa</i>	‘ <i>Numenius phaeopus</i> ’
Pn:	Luangiua	<i>kaloa(kule)</i>	‘Bar-tailed Godwit, <i>Limosa lapponica</i> ’
Pn:	Sikaiana	<i>toloa</i>	‘ <i>Numenius phaeopus</i> , <i>Limosa lapponica</i> ’
Pn:	Rennellese	<i>togoā</i>	‘Great Egret, <i>Egretta alba</i> ’
Pn:	Tuamotuan	<i>toroa</i>	‘booby, <i>Sula</i> sp.’
Pn:	Rarotongan	<i>toroa</i>	‘booby, <i>Sula</i> spp.’
Pn:	Māori	<i>toroa</i>	‘albatross, <i>Diomedea</i> spp.’

⁶ Southern Melanesian is a subgroup proposed by John Lynch comprising the Southern Vanuatu and New Caledonian languages. See for example Lynch (2004:317).

Proto Tahitic **mokolā* ‘duck’

Pn:	Tahitian	<i>moʔorā</i>	‘Pacific Black Duck, <i>Anas superciliosa</i> ’
Pn:	Manihiki	<i>rāmoko</i>	‘wild duck sp.’
Pn:	Rarotongan	<i>mokorā</i>	‘duck’

Māori applies formally cognate terms to two quite different species:

Pn:	Māori	<i>mokorā</i>	‘New Zealand Robin, <i>Petroica australis</i> (female)’
		<i>makorā</i>	‘Silver Gull, <i>Larus novaehollandiae</i> ’

A strikingly resemblant form occurs in Motu. The only known source of Polynesian loan-words here would be 19th century missionaries from the Cook Islands, but it seems odd to have a wild species named in this way.

PT:	Motu	<i>mokoraha</i>	‘Wandering Whistling Duck, <i>Dendrocygna arcuata</i> ’
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5.4 Diurnal raptors (Pandionidae, Accipitridae, Falconidae)

These three families are treated together because of obvious similarities in appearance and habits, as well as overlap in naming practices. They are well represented in the homeland, with at least ten species. Roughly from largest to smallest, they include the White-bellied Sea Eagle (*Haliaeetus leucogaster*), the Osprey (*Pandion haliaetus*), several goshawks of genus *Accipiter*; the Brahminy Kite (*Haliastur indus*), the Black Honey Buzzard (*Henicopernis infuscata*), the Crested Baza (*Aviceda subcristata*), and probably both the Peregrine Falcon (*Falco peregrinus*) and the Oriental Hobby (*Falco severus*).

A very large number of terms for birds of prey are recorded, from which a number of cognate sets emerge; however, associating particular names with particular species is much more difficult, owing in large part to vague descriptions which use ‘hawk’ or ‘eagle’ to refer to any bird of prey.

5.4.1 Fish-eating raptors (*Pandion*, *Haliaeetus*, *Haliastur*)

Perhaps because of their size alone, these species provide some of the best POc reconstructions. The following set may represent a generic term:

POc **taragau* ‘fish-eating eagle or hawk’

NNG:	Kairiru	<i>tarakʷau,</i> <i>tirakʷau</i>	‘hawk/eagle’
NNG:	Manam	<i>taragau</i>	‘fish-eagle’
MM:	Patpatar	<i>taragau</i>	‘Whistling Kite, <i>Haliastur sphenurus</i> ’
MM:	Tolai	<i>taragau</i>	‘Osprey, <i>Pandion haliaetus</i> ’
SES:	Malango	<i>taragau</i>	‘ <i>Pandion haliaetus</i> ’
SES:	Kwara’ae	<i>alafau</i>	‘hawk not very big, steals chickens and other birds’ food’
SES:	Kwaio	<i>alagau</i>	‘White Goshawk, <i>Accipiter novaehollandiae</i> ’
SES:	Sa’a	<i>arakau</i>	‘Brahminy Kite, <i>Haliastur indus</i> ’
SES:	Arosi	<i>aragau</i>	‘ <i>Haliastur indus</i> ’

cf. also:

MM:	Nehan	<i>targau</i>	‘Red-footed Booby, <i>Sula sula</i> ’
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Figure 6.5 *Haliaeetus leucogaster*, White-bellied Sea Eagle

The fish-eagle (*Haliaeetus*) was probably the largest flying creature known to the Proto Oceanic speakers. (*H. leucogaster* of the homeland is replaced in the Solomons by the very similar *H. sanfordi*.) So it is not surprising to find terms for this species literally meaning ‘big bird’ in a number of languages. In all but one of the following, the first element reflects POc **manuk* ‘bird’, and the second is the local word for ‘big’. These second elements are etymologically diverse, but Patpatar, Nehan and Puluwatese probably retain the POc form **lapuat* ‘large’ (vol.2:190–191).

POc **manuk-lapuat* [‘big bird’] ‘White-bellied Sea Eagle, *Haliaeetus leucogaster*’

PT:	Bartle Bay	<i>manu-bada</i>	‘sea hawk’
PT:	Are	<i>manu-bada</i>	‘fish hawk’
PT:	Wedau	<i>manu-bada</i>	‘fish hawk’
MM:	Patpatar	<i>malaba</i>	‘eagle (black and white)’
MM:	Nehan	<i>manu-lab</i>	‘ <i>Haliaeetus leucogaster</i> or Osprey, <i>Pandion haliaetus</i> ’
SES:	Bugotu	<i>manu hutu</i>	‘eagle’
SES:	Gela	<i>manu-kama</i>	‘a hawk, eagle’
SES:	Gae	<i>manu-loki</i>	‘eagle’
SES:	To’aba’ita	<i>noʔo baʔita</i>	‘eagle sp.’
TM:	Vano	<i>menuka pʷene</i>	‘eagle’
Fij:	Bauan	<i>manu-levu</i>	‘Pacific Marsh Harrier, <i>Circus approximans</i> ’

The following is formally connected, but from an area with no eagles—perhaps still referring to the largest bird in the area:

Mic: Puluwatese *mallap* ‘frigate bird’

Two other sets are derived from the bird generic **manuk*, though the second element is less easy to identify.

POc **manuka* ‘sea eagle’ (Blust 2002)

Yap:	Yapese	<i>manuw</i>	‘eagle’
MM:	Halia (Haku)	<i>manu</i>	‘Sanford’s Sea Eagle, <i>Haliaeetus sanfordi</i> ’

MM:	Petats	<i>manu</i>	‘the very large fish-eagle’
MM:	Banoni	<i>manuka</i>	‘ <i>Haliaeetus sanfordi</i> ’
MM:	Mono-Alu	<i>mānuʔa</i>	‘eagle’
MM:	Roviana	<i>manuvu, manuyu</i>	‘a large grey fish-hawk’
MM:	Ughele	<i>manuyu</i>	‘eagle’
Mic:	Puluwatese	<i>mānuwa</i>	‘legendary man-eating bird’
Mic:	Carolinian (Tanapag)	<i>m^wuluwa, manuwə</i>	‘eagle, hawk’
Mic:	Chuukese	<i>məriwo</i>	‘a kind of sea eagle; a mythical bird, the flapping of whose wings makes a wind that topples trees’

PAdm **manu(w)ai* ‘sea eagle’ (Blust 2002)

Adm:	Loniu	<i>menuway</i>	‘eagle’
Adm:	Nyindrou	<i>mañuwe</i>	‘eagle’
Adm:	Titan	<i>manuai</i>	‘Osprey, <i>Pandion haliaetus</i> ’
Adm:	Baluan	<i>manuay</i>	‘sea eagle’
Adm:	Lou	<i>menua</i>	‘hawk, eagle’
Adm:	Wuvulu	<i>manua</i>	‘sea eagle’

Though perhaps not so strongly identified with a particular species, the following also appears to refer to the largest raptors:

POc **bogi* ‘large bird of prey sp., possibly sea eagle’

Adm:	Titan	<i>poe(dilei)</i>	‘large eagle’
NNG:	Gitua	<i>(man)bok</i>	‘large eagle’
NNG:	Bariai	<i>bogi</i>	‘sea eagle’
NNG:	Lusi	<i>voyi</i>	‘sea eagle’
NNG:	Malalamai	<i>bogi</i>	‘small eagle’
NNG:	Gedaged	<i>bog</i>	‘large predatory bird, fish eagle’
NNG:	Takia	<i>bog</i>	‘eagle’
NNG:	Wab	<i>buog</i>	‘large eagle’
NNG:	Roinji	<i>bok</i>	‘small eagle’
NNG:	Aria	<i>bogi</i>	‘sea eagle’
PT:	Lala	<i>boʔi(bata)</i>	‘beach eagle’
PT:	Mekeo	<i>foi</i>	‘large birds of prey more common near mountains’
PT:	Motu	<i>bogi(bada)</i>	‘Black Kite, <i>Milvus migrans</i> ’ (<i>bada</i> ‘big’)

Further possible POc reconstructions for ‘eagles’ are:

POc **b^way* ‘sea eagle’

Adm:	Baluan	<i>(ŋa)puan</i>	‘brown bird, eats fish, similar to sea eagle but smaller’
NNG:	Yabem	<i>(mɔʔ)b^way</i>	‘sea eagle’ (<i>mɔʔ</i> ‘bird’)
NNG:	Mangap	<i>man-boŋ</i>	‘eagle’

POc **roqa* ‘eagle’

MM:	Bola	<i>loya</i>	‘eagle’
MM:	Nakanai	<i>loha(uru)</i>	‘sea eagle’ (<i>uru</i> ‘big’)
SES:	Malango	<i>roha</i>	‘White Goshawk, <i>Accipiter novaehollandiae</i> ’
SES:	Longgu	<i>aroa</i>	‘eagle’

POc **maya* ‘Osprey, *Pandion haliaetus*’

Adm:	Titan	<i>maya</i>	‘type of raptor’
PT:	Wedau	<i>mai(dunari)</i>	
MM:	Nakanai	<i>māe</i>	‘large hawk’

There are several further local reconstructions in the Solomons for these fish-eaters:

Proto NW Solomonic **katata~*kakata* ‘sea eagle, *Haliaeetus*’

MM:	Nehan	<i>katkata(kubul)~ tatate(kubul)</i>	‘White-bellied Sea Eagle, <i>H. leucogaster</i> (juvenile)’
MM:	Marovo	<i>kakaka</i>	‘eagle’
MM:	Nduke	<i>tata</i>	‘Sanford’s Sea Eagle, <i>Haliaeetus sanfordi</i> ’
MM:	Roviana	<i>atāta</i>	‘eagle’
MM:	Simbo	<i>kakaka</i>	‘eagle’
MM:	Vangunu	<i>akaka</i>	‘eagle’
MM:	Kokota	<i>kakade</i>	‘eagle’
MM:	Maringe	<i>gayata</i>	‘ <i>Haliaeetus sanfordi</i> ’

Proto SE Solomonic **tava* ‘hawk or eagle’ (cf POc **tap^(w)a* ‘glide, soar’ above)

SES:	Gela	<i>tava</i>	‘small hawk’
SES:	Malango	<i>tavo(kea)</i>	‘Brahminy Kite, <i>Haliastur indus</i> ’
SES:	To’aba’ita	<i>afa</i>	‘eagle sp.’
SES:	Kwara’ae	<i>afa</i>	‘eagle (largest of all birds)’
SES:	Kwaio	<i>afa</i>	‘Sanford’s Sea Eagle, <i>Haliaeetus sanfordi</i> ’
SES:	’Are’are	<i>aha</i>	‘sparrow-hawk, eagle’
SES:	Fataleka	<i>āfe</i>	‘eagle’
SES:	Uki ni Masi	<i>hata(rona)</i>	‘eagle’
SES:	Bauro	<i>aheta(rona)</i>	‘eagle’

cf. also:

Pn:	Rennellese	<i>tava</i>	‘Australian Goshawk, <i>Accipiter fasciatus</i> ’ (borrowed from a SE Solomonic source)
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Proto Malaita-Makira **fada* ‘sea eagle, *Haliaeetus*’

SES:	Kwaio	<i>fada</i>	‘eagle’
SES:	Dori’o	<i>fada</i>	‘eagle’
SES:	’Are’are	<i>hata</i>	‘big brown eagle’
SES:	Sa’a	<i>hada</i>	‘White-bellied Sea Eagle, <i>Haliaeetus leucogaster</i> ’
SES:	Arosi	<i>hada</i>	‘ <i>Haliaeetus leucogaster</i> ’

Proto Malaita-Makira **wakio* ‘Osprey, *Pandion haliaetus*’

SES:	To’aba’ita	<i>k^wakiʔo</i>	‘fish eating raptor, probably osprey’
SES:	Lau	<i>k^wakio</i>	
SES:	Langalanga	<i>k^wagio</i>	‘eagle’
SES:	’Are’are	<i>wakio</i>	‘fish hawk’
SES:	Sa’a	<i>wakio</i>	
SES:	Arosi	<i>wagio</i>	
SES:	Bauro	<i>wakio</i>	

The following may be cognate with PSOc **mala* (§5.4.2 on p.303):

PNCal **b^wamara* ‘fishing bird of prey’

NCal:	Nêlêmwa	<i>b^waivada</i>	‘Osprey, <i>Pandion haliaetus</i> ’
NCal:	Jawe	<i>b^waemada</i>	‘Whistling Kite, <i>Haliastur sphenurus</i> ’
NCal:	Pije	<i>b^waep^hada</i>	‘ <i>Haliastur sphenurus</i> ’
NCal:	Paicî	<i>b^wāmāta</i>	‘Pacific Marsh Harrier, <i>Circus approximans</i> ’
NCal:	Ajië	<i>boamara</i>	‘oiseau de proie, genre épervier’
NCal:	Tinrin	<i>b^wamera</i>	‘ <i>Pandion haliaetus</i> ’
NCal:	Xârâcùù	<i>m^wāmara</i>	‘ <i>Pandion haliaetus</i> ’
		<i>b^wamata</i>	‘harrier sp.’

5.4.2 Other raptors

The highly distinctive Crested Baza had an apparent POc name:

POc **ki(t,s)o* ‘Crested Baza, *Aviceda subcristata*’

PT:	Iduna	<i>kito</i>	
MM:	Patpatar	<i>kistou</i>	
MM:	Halia	<i>kitou</i>	‘large bird (similar to the cockatoo and blue pigeon)’
MM:	Banoni	<i>kītou</i>	
MM:	Nduke	<i>pito</i>	‘crested hawk, <i>Baza guineyi</i> ’
MM:	Roviana	<i>pito</i>	‘crested hawk, <i>Baza guineyi</i> ’
MM:	Maringe	<i>k^hutu(reo)</i>	‘Imitator Sparrow Hawk, <i>Accipiter imitator</i> ’ (cf. <i>reʔo</i> ‘having hoarse, raspy voice’)
SES:	Gela	<i>kito</i>	‘very large bird sp.’
SES:	Malango	<i>kico</i>	
SES:	Longgu	<i>kito</i>	‘crested hawk’
SES:	To’aba’ita	<i>ʔito</i>	‘bush bird sp.’
SES:	Kwaio	<i>kito</i>	‘bird sp.’
SES:	’Are’are	<i>kiʔito</i>	‘a hawk’
SES:	Sa’a	<i>kīto</i>	

cf. also:

Fij:	Wayan	<i>kītū</i>	‘swamphen, <i>Porphyrio porphyrio</i> ’
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Figure 6.6 *Aviceda subcristata*, Crested Baza

PNGOc **kisakisa* ‘hawk or eagle’

NNG:	Dami	<i>kisō</i>	‘hawk’
NNG:	Gedaged	<i>kiskis</i>	‘eagle sp., catches fish’
PT:	Tubetube	<i>kisakisa</i>	‘a hawk’
PT:	Are	<i>kisakisa</i>	‘hawk’
PT:	Kilivila	<i>kilakila</i>	‘hawk’
PT:	Nimoa	<i>kisakisa</i>	‘hawk’

cf. also:

NNG:	Adzera	<i>ɲasɲas</i>	‘type of eagle’
NNG:	Takia	<i>ɲesɲes</i>	‘hawk’
SES:	Gela	<i>kisokiso</i>	‘bird sp. in the forest’

The following three sets of terms have fairly wide geographical spread but they are not numerous or semantically consistent enough to justify a confident attribution to Proto Oceanic.

POc (?) **luar* ‘eagle’

MM:	Tolai	<i>luər</i>	‘large hawk sp.’
MM:	Petats	<i>loa</i>	‘a hawk which is a little bigger and more tawny than the <i>hatatug</i> ’
TM:	Nebao	<i>nüæ</i>	‘eagle’
TM:	Asuboa	<i>lio</i>	‘eagle’
TM:	Tanibili	<i>(noño)luo</i>	‘eagle’

POc (?) **p^wa(r;R)a* ‘hawk’

Adm:	Mussau	<i>palē</i>	‘hawk’
NNG:	Pasismanua ⁷	<i>pola</i>	‘Brahminy Kite, <i>Haliastur indus</i> ’
PT:	Gapapaiwa	<i>bora</i>	‘eagle (generic)’
MM:	Patpatar	<i>peres</i>	‘ <i>Haliastur indus</i> ’
MM:	Roviana	<i>vari (ivu)</i>	‘eagle sp.’
TM:	Vano	<i>na-vala</i>	‘Pied Goshawk, <i>Accipiter albogularis</i> ’
NCV:	Mota	<i>var-vara(m^watika)</i>	‘a kite that preys on the <i>m^watika</i> [swamphen]’
NCV:	Kiai	<i>pa-para</i>	‘Australian Goshawk, <i>Accipiter fasciatus</i> , or Peregrine Falcon, <i>Falco peregrinus</i> ’
NCV:	Atchin	<i>(mato)war</i>	‘a large species of hawk that sometimes kills fowls and rats’
NCV:	SE Ambrym	<i>væ-væ(hum)</i>	‘Pacific Marsh Harrier, <i>Circus approximans</i> ’
NCV:	Paamese	<i>vei-va(kume)</i>	‘ <i>Circus approximans</i> ’
NCV:	Lewo	<i>pe-pa(uma)</i>	‘hawk; eagle’
Pn:	Takuu	<i>pallā</i>	‘large mythical bird of prey’

POc (?) **ta(ou)k* ‘hawk, bird of prey’

Adm:	Mussau	<i>tao-taoko</i>	‘sea eagle’
NNG:	Kaulong	<i>(ekin) tau</i>	‘hawk’ (<i>ekin</i> ‘bird’)
MM:	Tolai	<i>tauk(il)</i>	‘Crested Baza, <i>Aviceda subcristata</i> ’

Regionalisms for the smaller predators include:

PWOc **kīpa* ‘hawk’

PT:	Balawaia	<i>kīpa</i>	‘carnivorous bird’
PT:	Motu	<i>kīpa</i>	‘hawk’
MM:	Maringe	<i>ki-k^hīpa</i>	‘White Goshawk, <i>Accipiter novaehollandiae</i> ’

PWOc **kam^waga* ‘eagle, hawk’ (cf. perhaps PMic **kemoa* ‘booby’, §7.3)

PT:	Balawaia	<i>yamoga</i>	‘eagle’
PT:	Hula	<i>amoa</i>	‘eagle hawk’
MM:	Babatana	<i>kamaga</i>	‘hawk’

PPT **kitave* ‘hawk’

PT:	Wedau	<i>kita</i>	‘kestrel’
		<i>kitave</i>	‘hawk’
PT:	Bartle Bay	<i>kitave</i>	‘hawk’
PT:	Mekeo	<i>aŋi</i>	‘hawk’

⁷ ‘Pasismanua’ is the name provisionally used here for ‘native names’ given by Gilliard & Lecroy (1967) for birds identified during the 1958-59 Gilliard New Britain Expedition. The spellings are impressionistic and the language or languages are not clearly identified, but the area of the expedition’s work lies within the territory of the Pasismanua group of languages, part of the Southwest New Britain Linkage.

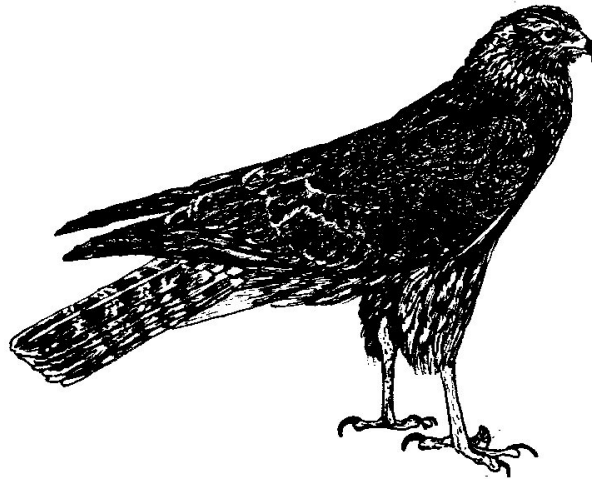


Figure 6.7 *Circus approximans*, Pacific Marsh Harrier

In Southern Oceania, the sea eagles are no longer present, and the familiar raptors are the goshawks (*Accipiter* spp.) and the Pacific Marsh Harrier (*Circus approximans*)

PSOc **mala* ‘hawk’ (John Lynch, pers. comm.)

NCV: Mota	<i>mala</i>	‘hawk, kite, osprey’
NCV: Lakon	<i>mal</i>	‘Pacific Marsh Harrier, <i>Circus approximans</i> ’
NCV: Raga	<i>mala</i>	‘ <i>Circus approximans</i> ’
	<i>mal-kal-b^wiru</i>	‘Australian Goshawk, <i>Accipiter fasciatus</i> ’ (<i>b^wiru</i> ‘Purple Swamphen, <i>Porphyrio porphyrio</i> ’)
NCV: Matantas	<i>na-nala</i>	‘ <i>Circus approximans</i> ’
NCV: Sara	<i>ne-anal</i>	‘ <i>Circus approximans</i> ’ (Flux 1993)
NCV: Kiai	<i>mala</i>	‘ <i>Circus approximans</i> ’
NCV: Atchin	<i>ni-mal</i>	‘kite’
NCV: Namakir	<i>māl</i>	‘red hawk’
NCV: Nguna	<i>māla</i>	‘hawk (brown back, white underneath)’
SV: N Tanna	<i>maləkam</i>	‘eagle’
SV: Lenakel	<i>melkəm</i>	‘eagle’
SV: Anejoñ	<i>in-mecyap^w</i>	‘ <i>Accipiter fasciatus</i> , <i>Circus approximans</i> ’

Borrowed from a North–Central Vanuatu language:

Pn: Ifira-Mele	<i>mala</i>	‘ <i>Circus approximans</i> ’
	<i>mala-p^wēriki</i>	‘Peregrine Falcon, <i>Falco peregrinus</i> ’

The following could be an irregular development of **mala*; the languages shown are all from Malakula, Vanuatu; however some of the Vanuatu reflexes of POc **p^wa(r,R)a* ‘hawk’ above may belong here, being from languages in which **l* and **R* would both give zero in this environment.

Proto Central Vanuatu **bala* ‘Pacific Marsh Harrier, *Circus approximans*’

NCV: Atchin	<i>ni-^mbel</i>	‘hawk’
NCV: Naman	<i>ne-bel</i>	

NCV: Neve'ei	<i>ne-bal</i>	
NCV: Nese	<i>na-dal</i>	
NCV: Big Nambas	<i>ni-bəl</i>	‘hawk’
NCV: Letemboi	<i>na-^mbála</i>	‘hawk’
NCV: Labo	<i>ne-^mbale</i>	‘hawk’
NCV: SW Bay	<i>na-^mbal</i>	‘hawk’
NCV: Aulua	<i>ne-^mbel</i>	‘hawk’

Proto South Melanesian **marup* ‘falcon’

SV: Ura	<i>umrom</i>	‘peregrine falcon’
SV: Sye	<i>umrom</i>	‘peregrine falcon’
SV: Kwamera	<i>murup</i>	‘Peregrine Falcon, <i>Falco peregrinus</i> ’
NCal: Nengone	<i>marup</i>	‘Australian Goshawk, <i>Accipiter fasciatus</i> , possibly also falcon’

PNCal **deŋ* ‘Pacific Marsh Harrier, *Circus approximans*’

NCal: Nêlêmwa	<i>daŋ</i>	
NCal: Caaàc	<i>deñ</i>	
NCal: Jawe	<i>deñ</i>	
NCal: Pije	<i>diŋ</i>	
NCal: Cèmuhi	<i>diŋ</i>	‘New Caledonia Sparrow Hawk, <i>Accipiter haplochrous</i> ’
NCal: Paicî	<i>(mãrũ)dü</i>	‘ <i>Accipiter haplochrous</i> ’
NCal: Tinrin	<i>dai</i>	‘hawk’
NCal: Xârâcùù	<i>dê</i>	
NCal: Drubea	<i>nrú</i>	
NCal: Iaaï	<i>diŋ</i>	
NCal: Nengone	<i>(wa)doŋ</i>	

PNCal **b^wakole* ‘hawk or kite’ (cf. **b^wamara* above)

NCal: Nêlêmwa	<i>b^wāyole, b^wāole</i>	‘Pacific Marsh Harrier, <i>Circus approximans</i> ’
NCal: Caaàc	<i>b^waole</i>	‘Australian Goshawk, <i>Accipiter fasciatus</i> ’
NCal: Pije	<i>b^wāholē</i>	‘Whistling Kite, <i>Haliastur sphenurus</i> ’
NCal: Cèmuhi	<i>b^wāolē</i>	‘ <i>Haliastur sphenurus</i> ’
NCal: Paicî	<i>b^wāwãré</i>	‘ <i>Haliastur sphenurus</i> ’
NCal: Iaaï	<i>bāholē</i>	‘ <i>Accipiter fasciatus, Haliastur sphenurus</i> ’

5.5 Megapodes (Megapodiidae)

Megapodes or scrub fowl (*Megapodius* spp.) are found from the homeland south to Vanuatu and as far east as the island of Niuafo’ou in Tonga. The representative in the homeland is the Bismarck Scrub Fowl (*M. eremita*). All three of the name-sets below may be of imitative origin, given the bird’s two-syllable calls ending in [au]-like sounds. (Hadden (2004a:78)



Figure 6.8 *Megapodius eremita*, Bismarck Scrub Fowl

gives ‘paa-au’, ‘keeawau keeawuh’, ‘keereow keerow’ and ‘kiau kiau’ as representations of its calls.)

POc **m^walau* is reflected from Sulawesi (Sangirese *maleo*) to the easternmost bird of this family in Tonga (Wallace 1869: 202-4, Christian 1926, but see also comments in Blust 2002).

POc **m^walau* ‘Bismarck Scrub Fowl, *Megapodius eremita*’

NNG:	Kairiru	<i>molau</i>	‘wild fowl inhabiting the bush, produces fairly large eggs’
NNG:	Manam	<i>molau</i>	‘bird sp.’
NNG:	Gedaged	<i>malau</i>	‘megapode’
NNG:	Sengseng	<i>muluŋ</i>	‘bush hen, megapode’
NCV:	Mota	<i>m^walau</i>	‘Banks Island Scrub Fowl, <i>Megapodius layardi</i> ’
NCV:	Lakon	<i>m^wala</i>	‘ <i>Megapodius layardi</i> ’
NCV:	Raga	<i>m^walau</i>	‘ <i>Megapodius layardi</i> ’
NCV:	Matantas	<i>na-malau</i>	‘ <i>Megapodius layardi</i> ’
NCV:	Sara	<i>na-mlau</i>	‘ <i>Megapodius layardi</i> ’ (Flux 1993)
NCV:	Kiai	<i>malau</i>	‘megapode (?)’
NCV:	Atchin	<i>(to)m^wla</i>	‘bush turkey’ (<i>to</i> ‘fowl’)
NCV:	Neve’ei	<i>(noto)molo</i>	‘ <i>Megapodius layardi</i> ’
NCV:	Tape	<i>(ti)molo</i>	‘ <i>Megapodius layardi</i> ’
NCV:	Nese	<i>(to)mola</i>	‘ <i>Megapodius layardi</i> ’
NCV:	SE Ambrym	<i>meu</i>	‘ <i>Megapodius layardi</i> ’
NCV:	Paamese	<i>meau</i>	‘ <i>Megapodius layardi</i> ’
NCV:	Lewo	<i>miāu</i>	‘bird sp., green with white belly and tail’
NCV:	Namakir	<i>molo</i>	‘ <i>Megapodius layardi</i> ’
NCV:	Nguna	<i>malau</i>	‘ <i>Megapodius layardi</i> ’
Pn:	Tongan	<i>malau</i>	‘Polynesian Scrub Fowl, <i>Megapodius pritchardii</i> ’
Pn:	Takuu	<i>marau</i>	
Pn:	Luangiua	<i>malau</i>	

An apparent doublet with **k^w-* appears in a number of New Guinea and Solomons languages:

POc **k^wal(i)au* ‘Bismarck Scrub Fowl, *Megapodius eremita*’

NNG:	North Watut	<i>keron</i>	‘bush-hen sp.’
NNG:	Mengen (Poeng)	<i>kerao</i>	‘wildfowl’
PT:	Hula	<i>k^walio</i>	‘scrubhen’
PT:	Muyuw	<i>korau(ta)</i>	‘megapod’
PT:	Iduna	<i>k^walau(ta)</i>	‘Dusky Scrub Fowl, <i>Megapodius freycinet</i> ’
PT:	Bwaidoga	<i>k^walau(ta)</i>	‘megapod or bush hen’
MM:	Nakanai	<i>kileo</i>	‘bush fowl (megapode)’
MM:	Tolai	<i>kuru(pap)</i>	‘ <i>Megapodius freycinet</i> ’
MM:	Petats	<i>kolon</i>	‘the mound-bird or megapodidae’
MM:	Kia	<i>kolo(peho)</i>	‘megapode’
SES:	Gela	<i>koleo</i>	‘a brush turkey, megapod’

The following set shows many irregularities suggestive of independent onomatopoeic origin, but there may be some basis for a reconstruction **k(a)iau*:

POc **k(a)iau* ‘Bismarck Scrub Fowl, *Megapodius eremita*’

Adm:	Mussau	<i>kikiau</i>	‘large mound building bird, <i>Megapodius</i> ’
NNG:	Kove	<i>kio</i>	‘bush hen, megapode’
NNG:	Lusi	<i>kaiau</i>	
NNG:	Amara	<i>o-koiou</i>	‘bush hen, <i>wailpaul</i> (i.e. megapode)’
NNG:	Bariai	<i>kaiau</i>	
NNG:	Kilenge	<i>kaiau</i>	‘bush hen’
NNG:	Mangap	<i>kiau</i>	‘a wild bird, bush chicken’
MM:	Patpatar	<i>kiou</i>	‘fowl that has been domesticated’
MM:	Tolai	<i>kiau</i>	
MM:	Halia	<i>kihau</i>	‘ground bushfowl’
		<i>kio</i>	‘Dusky Scrub Fowl, <i>Megapodius freycinet</i> ’
MM:	Nehan	<i>kaio</i>	‘bush fowl’
MM:	Torau	<i>kiau</i>	‘ <i>Megapodius freycinet</i> ’
MM:	Marovo	<i>io</i>	
MM:	Nduke	<i>eo</i>	
MM:	Roviana	<i>eo</i>	‘brush hen’
MM:	Maringe	<i>k^ho?io</i>	
SES:	Malango	<i>kihau</i>	
SES:	To’aba’ita	<i>geo</i>	
SES:	Kwara’ae	<i>geo</i>	
SES:	Kwaio	<i>geo</i>	

5.6 Pheasants and quails (Phasianidae)

Apart from the domestic fowl, the only representative of this family in the homeland is the Indian Blue Quail (*Coturnix chinensis*). In the following comparison, a POc reconstruction is justified if the Mangap and Tolai forms are regarded as continuing the PAn etymon.

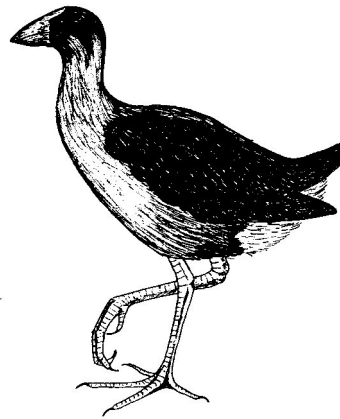


Figure 6.9 *Porphyrio porphyrio*, Purple Swamphen

PAn **puRuq* ‘quail, partridge’ (Blust 2002)

POc **puRu(q)* ‘quail’

NNG: Mangap *puru(pāla)* ‘quail’

MM: Tolai *voro, woro* ‘Indian Blue Quail, *Coturnix chinensis*’

5.7 Rails (Rallidae)

The numerous rails of Oceania include the very widespread Purple Swamphen (*Porphyrio porphyrio*), easily recognised by its large size and red forehead. Among the smaller species are the Buff-banded Rail (*Rallus philippensis*) and White-browed Rail (*Porzana cinerea*), which occur throughout much of the Oceanic region, and in the homeland three others of the genus *Rallus*, as well as the Bare-eyed Rail (*Eulabeornis plumbeiventris*), Red-necked Crake (*Rallina tricolor*), and Rufous-tailed Moorhen (*Amaurornis olivaceus*).

POc **b^walaRe* ‘Purple Swamphen, *Porphyrio porphyrio*’

MM: Tolai *bulārə* ‘purple swamp hen’

SES: Uki ni Masi *polale*

SES: Arosi *p^warare* ‘large blue swamp bird sp.’

SES: Bauro *balare* ‘large blue swamp bird sp.’

Fij: Lau, Vanua Levu *galā*

Fij: Rotuman *kalæe*

Pn: Tongan *kalae*

Pn: Niuean *kalē, kulē*

Pn: E Futunan *kalae*

Pn: Sikaiana *kalae* ‘bird sp.’

Pn: Pileni *kalai* ‘bush bird sp.’

Pn: Rennellese *kagae*

Pn: Tikopia *karae*

Pn: Emae *karae*

Pn: W Uvean *kalae*

Pn: Hawaiian *?alae* ‘Moorhen, *Gallinula chloropus*’

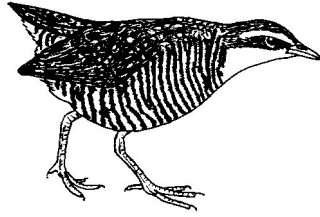


Figure 6.10 *Rallus philippensis*, Buff-banded Rail

Another possible POC reconstruction for the same bird is the following:

POc **b^wiru* ‘Purple Swamphen, *Porphyrio porphyrio*’

MM:	Maringe	<i>na-phiro</i>	
NCV:	Mota	<i>weru</i>	‘ <i>Eulabeornis</i> , a rail’
NCV:	Raga	<i>b^wiru</i>	
NCV:	Nese	<i>ne-verē</i>	
SV:	Sye	<i>(um)pulau</i>	
SV:	Ura	<i>bulau</i>	

The only other rail for which widespread cognate sets exist is the Buff-banded Rail (*Rallus philippensis*). The following possible POC reconstruction has only slender support:

POc **b(a,e,i)risu* ‘Buff-banded Rail, *Rallus philippensis*’

MM:	Tolai	<i>piriu</i>
SES:	Uki ni Masi	<i>perisu</i>
SES:	Bauro	<i>parisu</i>

In Vanuatu, a solid set of cognates referring to this bird shows a distinct resemblance to the term for the Swamphen, POC **b^walaRe*.

PNCV **b^(w)ilake* ‘Buff-banded Rail, *Rallus philippensis*’

NCV:	Mota	<i>pilaye</i>	‘rail’
NCV:	Lakon	<i>pilay</i>	‘ <i>Rallus philippensis</i> ’
NCV:	Matantas	<i>na-pilagi</i>	‘White-browed Rail, <i>Porzana cinerea</i> ’
		<i>na-pilagi ruhupoi</i>	‘ <i>Rallus philippensis</i> ’
NCV:	Kiai	<i>pilae</i>	‘ <i>Rallus philippensis</i> ’
NCV:	Atchin	<i>pila</i>	‘rail’
NCV:	Neve’ei	<i>ni-bila?</i>	‘ <i>Rallus philippensis</i> ’
NCV:	Big Nambas	<i>beləy</i>	‘rail’
NCV:	Namakir	<i>b^wilak</i>	‘ <i>Rallus philippensis</i> ’
NCV:	Nguna	<i>na-p^wilake</i>	‘ <i>Rallus philippensis</i> ’
SV:	Sye	<i>ne-mpli</i>	‘ <i>Rallus philippensis</i> ’
SV:	Kwamera	<i>pəre</i>	‘ <i>Rallus philippensis</i> ’

The similarity is enhanced by two SE Solomonian languages in which the word, while still denoting the Purple Swamphen, show unexpected *k* for **R* in the final syllable:

SES:	Gela	<i>bilake, bulake</i>	‘swamp hen’
SES:	Malango	<i>bulaki</i>	‘ <i>Porphyrio porphyrio</i> ’

A group of New Caledonian names for the smaller rail echo the canonical form of **b^walaRe* and **b^(w)olake*:

PNCal **pit(a,i)ri* ‘rail’

NCal:	Tinrin	<i>piṭiri</i>	‘rail’
NCal:	Xârâcùù	<i>picari</i>	‘New Caledonian Wood Rail, <i>Rallus lafresnayanus</i> ’
NCal:	Drubea	<i>pícarí</i>	‘Buff-banded Rail, <i>Rallus philippensis</i> ’

PNCal **biŋ* ‘Buff-banded Rail, *Rallus philippensis*’

NCal:	Nêlêmwa	<i>biñ</i>
NCal:	Caaàc	<i>pik</i>
NCal:	Pije	<i>pik</i>
NCal:	Cèmuhi	<i>bēn</i>
NCal:	Iaai	<i>bæŋ</i>

Proto Central Pacific had a distinct name for the Buff-banded Rail.

PCP **weka* ‘Buff-banded Rail, *Rallus philippensis*’

Fij:	Rotuman	<i>veʔa</i>	
Pn:	Tongan	<i>veka</i>	
Pn:	Niuean	<i>veka</i>	
Pn:	E Uvean	<i>veka</i>	
Pn:	E Futunan	<i>veka</i>	
Pn:	Samoan	<i>veʔa</i>	
Pn:	Rennellese	<i>veka</i>	‘Purple Swamphen, <i>Porphyrio porphyrio</i> (juvenile)’
Pn:	Emae	<i>veka</i>	
Pn:	W Futunan	<i>veka</i>	‘woodhen’
Pn:	W Uvean	<i>veka</i>	
Pn:	Tahitian	<i>tevea</i>	[i.e. <i>te veʔa</i>] ‘ <i>Rallus pacificus</i> ’ (Forster, 1775)
Pn:	Māori	<i>weka</i>	‘Weka Rail, <i>Gallirallus australis</i> ’

The hypothetical Tahiti Rail (*Rallus pacificus*) is known only from a painting made on Cook’s second voyage (duPont 1976:41), but the name recorded agrees with the evidence of its appearance that it was a species of *Rallus*.

The only reconstruction for the Sooty Crane (*Porzana tabuensis*) is restricted to Polynesian.

PPn **mo(s)o* ‘Sooty Crane, *Porzana tabuensis*’

Pn:	Tongan	<i>moho</i>
Pn:	Niuean	<i>moho</i>
Pn:	E Futunan	<i>moso</i>
Pn:	Rennellese	<i>moso</i>

Pn:	Mangarevan	<i>moho</i>	‘rail sp.’
Pn:	Tahitian	<i>meho</i>	
Pn:	Rarotongan	<i>moʔo-moʔo</i>	
Pn:	Māori	<i>moho</i>	‘Buff-banded Rail, <i>Rallus philippensis</i> ’

Two Outlier languages apply a possible reflex of this word to a different small black bird:

Pn:	Nukuoro	<i>moso</i>	‘Micronesian Starling, <i>Aplonis opaca</i> ’
Pn:	K’marangi	<i>moeho</i>	‘ <i>Aplonis opaca</i> ’

The Nukuoro name looks like a regular development of PPn **moso*, but the Kapingamarangi suggests possible borrowing from Micronesian (cf. Mokilese *m^wɪɔk*).

5.8 Pigeons and doves (Columbidae)

This family is among the most richly elaborated in the Oceanic realm. Almost every island has at least one or two representatives, and the Proto Oceanic speakers may have been acquainted with twenty or more species. The most widely distributed Columbidae belong to two genera: the Imperial Pigeons (*Ducula* spp.), and the much smaller Fruit Doves (*Ptilinopus* spp.). Other genera represented include *Gymnophaps*, *Columba*, *Macropygia*, *Reinwardtoena*, *Chalcophaps*, *Gallicolumba*, *Henicophaps*, and the shaggy-plumaged Nicobar Pigeon, *Caloenas nicobarica*.

The most likely candidate for a generic is the following, which is identified as generic in some languages (Gedaged, Tawala, Muyuw), and elsewhere refers to a wide range of columbid genera. In some local areas, however, it appears to have become specialised.

PAn **punay* ‘dove, *Treron* sp.’ (Blust 2002)

POc **bune* ‘pigeon, dove’

NNG:	Kairiru	(<i>m^yan</i>) <i>pun</i>	‘pigeon’ (<i>m^yan</i> ‘bird’)
NNG:	Manam	<i>bune</i>	‘dove’
NNG:	Gedaged	<i>bun</i>	‘general name for pigeons and doves’
PT:	Iduna	<i>bune-bune</i>	‘Australian Pied Imperial Pigeon, <i>Ducula spilorrhoa</i> ’
PT:	Tawala	<i>bune-bune</i>	‘pigeon (generic)’
PT:	Kilivila	<i>bu-buna</i>	‘dove’
PT:	Muyuw	<i>b^wá-bun</i>	‘general term for pigeons’
		<i>bu-buna</i>	‘pigeon’
		<i>bunú(vad)</i>	‘white pigeon’
		<i>buna(kuku)</i>	‘blue pigeon’
PT:	Hula	<i>pune</i>	‘dove’
PT:	Motu	<i>pune</i>	‘ <i>Ducula spilorrhoa</i> ’
PT:	Bartle Bay	<i>bune-bune</i>	‘a dove, blue pigeon’
PT:	Wedau	<i>bune-bune</i>	‘green dove’
MM:	Patpatar	<i>bun</i>	‘dove, pigeon’
MM:	Tolai	(<i>ta</i>) <i>bunə</i>	‘Knob-billed Fruit Dove, <i>Ptilinopus insolitus</i> ’
MM:	Nehan	<i>bun</i>	‘Yellow-bibbed Fruit Dove, <i>Ptilinopus solomonensis</i> ’
MM:	Petats	<i>bun</i>	‘a small bird about the size of a dove’

TM:	Buma	<i>bune (batanoe)</i>	‘Santa Cruz Ground Dove, <i>Gallicolumba sanctaecrucis</i> ’
NCV:	Raga	<i>bune</i>	‘ <i>Ptilinopus greyii</i> (imm)’
NCV:	Matantas	<i>na-pone</i>	
NCV:	Kiai	<i>(va)pune</i>	‘Silver-shouldered Fruit Dove, <i>Ptilinopus tannensis</i> (imm)’
NCV:	Atchin	<i>(wo)pun</i>	‘bird sp.’
NCV:	Neve’ei	<i>(nav)bin</i>	‘ <i>Ptilinopus tannensis</i> ’
NCV:	Avava	<i>(nep)bbun</i>	‘ <i>Ptilinopus tannensis</i> ’
NCV:	Port Sandwich	<i>(na-vim)bün</i>	‘ <i>Ptilinopus tannensis</i> ’
NCV:	Labo	<i>(ne-v)pün</i>	‘ <i>Ptilinopus tannensis</i> ’
NCV:	Aulua	<i>(vi)^mbun</i>	‘ <i>Ptilinopus tannensis</i> ’
SV:	Ura	<i>ubuda</i>	‘ <i>Ptilinopus greyii</i> ’
SV:	Sye	<i>no-mpon</i>	‘ <i>Ptilinopus greyii</i> ’
SV:	Lenakel	<i>pun(hūa)</i>	‘bird sp., blue with red breast’
SV:	Kwamera	<i>pən(harov), pīn(uas)</i>	‘ <i>Ptilinopus greyii</i> ’
SV:	Anejom̃	<i>no-pña</i>	‘ <i>Ptilinopus</i> spp.’
NCal:	Nêlêmwa	<i>gun</i>	‘Cloven-feathered Dove, <i>Drepanoptila holosericea</i> ’
NCal:	Caaac	<i>gun</i>	‘ <i>Ptilinopus greyii</i> ’
NCal:	Jawe	<i>gun</i>	‘pigeon vert’
NCal:	Cèmuhi	<i>bun-hê?-wī</i>	‘ <i>Drepanoptila holosericea</i> ’
NCal:	Iaai	<i>biñ</i>	‘ <i>Ptilinopus greyii</i> ’
NCal:	Dehu	<i>piñ</i>	‘a pigeon’
Fij:	Bauan	<i>bune(damu)</i>	‘Orange Dove, <i>Ptilinopus victor</i> ’
		<i>buna(kō)</i>	‘Golden Dove, <i>Ptilinopus luteovirens</i> ’

Another very widespread set is also wide-ranging in its reference, though with a clear focus on genus *Ducula*, at least in Remote Oceanic languages.

POc **ku(i)ba* ‘pigeon, probably *Ducula* sp.’

PT:	Tawala	<i>guba(lia)</i>	‘blue pigeon’
PT:	Magori	<i>gubai</i>	‘pigeon’
PT:	Mekeo	<i>kopi</i>	‘pigeon’
MM:	Marovo	<i>(ba)kupa</i>	‘Nicobar Pigeon, <i>Caloenas nicobarica</i> ’
MM:	Nduke	<i>(ba)kupa</i>	‘ <i>Caloenas nicobarica</i> ’
MM:	Roviana	<i>(ba)kupa</i>	‘a pigeon’
SES:	Bauro	<i>(wa)ubo</i>	‘Mackinlay’s Cuckoo Dove, <i>Macropygia mackinlayi</i> ’
NCV:	Matantas	<i>na-whete</i>	‘Pacific Pigeon, <i>Ducula pacifica</i> ’
NCV:	Kiai	<i>wepe</i>	‘ <i>Ducula pacifica</i> ’
NCV:	Neve’ei	<i>no-yoim</i>	‘ <i>Ducula pacifica</i> ’
NCV:	Naman	<i>nu-yub</i>	‘ <i>Ducula pacifica</i> ’
NCV:	Tape	<i>no-y^wip</i>	‘ <i>Ducula pacifica</i> ’
NCV:	Avava	<i>wīm</i>	‘ <i>Ducula pacifica</i> ’
NCV:	Big Nambas	<i>kuṭ, wibi</i>	

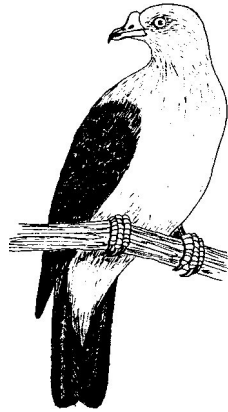


Figure 6.11 *Ducula pacifica*, Pacific Pigeon

NCV:	Nese	<i>no-γdo</i>	' <i>Ducula pacifica</i> '
NCV:	Nasarian	<i>na-xai^mba</i>	' <i>Ducula pacifica</i> '
NCV:	SW Bay	<i>no-ʔoi^mb</i>	' <i>Ducula pacifica</i> '
NCV:	Port Sandwich	<i>na-xu^mb</i>	' <i>Ducula pacifica</i> '
NCV:	SE Ambrym	<i>uip</i>	' <i>Ducula pacifica</i> '
NCV:	Paamese	<i>uīve</i>	' <i>Ducula pacifica</i> '
NCV:	Lewo	<i>kupa</i>	'pigeon'
NCV:	Namakir	<i>kīm</i>	' <i>Ducula pacifica</i> '
NCV:	Nguna	<i>wīpa</i>	' <i>Ducula pacifica</i> '
SV:	Ura	<i>wim</i>	'Pacific pigeon'
SV:	Sye	<i>no-γ^wem</i>	' <i>Ducula pacifica</i> '
Mic:	Sonsorolese	<i>kyope</i>	'Micronesian Pigeon, <i>Ducula oceanica</i> '
Fij:	Rotuman	<i>ʔipɔ</i>	' <i>Ducula pacifica</i> '
Pn:	Rennellese	<i>kuipa</i>	'male Pacific Pigeon with black swelling at bill'
Pn:	Pileni	<i>u^mbe</i>	'pigeon, dove'
Pn:	Marquesan	<i>kūkupa</i>	' <i>Ptilinopus dupetithouarsi</i> '
Pn:	Tahitian	<i>ʔuʔupa</i>	'Grey-green Fruit Dove, <i>Ptilinopus purpuratus</i> '
Pn:	Manihiki	<i>kukupa</i>	'wood dove'
Pn:	Rarotongan	<i>kūkupa</i>	'Rarotongan Fruit Dove, <i>Ptilinopus rarotongensis</i> '
Pn:	Māori	<i>kūkupa</i>	'New Zealand Pigeon, <i>Hemiphaga novaeseelandiae</i> '

5.8.1 Imperial Pigeons (*Ducula*)

The best supported cognate set for this type of pigeon has a PAn antecedent, though the development of PAn **R* to POc **l* is not regular.

PAn **baRuj* 'dove, *Ducula* sp.' (Blust 2002)

POc **baluc* 'pigeon, *Ducula* sp.'

Adm:	Mussau	<i>balus</i>	'dove sp.' (from Tok Pisin?)
Adm:	Loniu	<i>pan</i>	'bird sp.'

Adm:	Nyindrou	<i>ban</i>	‘dove’
Adm:	Titan	<i>(pim)pal</i>	‘pigeon’
Adm:	Lou	<i>pəl</i>	‘pigeon, dove: <i>Ducula</i> spp.’
NNG:	Manam	<i>bali(boro)</i>	‘grey pigeon’
NNG:	Yabem	<i>balosi</i>	‘dove, big slate-coloured pigeon’
NNG:	Kove	<i>vazuhi</i>	‘dove’
NNG:	Kilenge	<i>a-vol</i>	‘dove’
NNG:	Mangap	<i>^mbal^mbal</i>	‘dove’
NNG:	Tami	<i>^mbalut</i>	‘blue dove’
NNG:	Aria	<i>belis</i>	‘dove’
NNG:	Kaulong	<i>(ekin) vulus</i>	‘dove’ (<i>ekin</i> ‘bird’)
NNG:	Lamogai	<i>belis</i>	‘dove’
MM:	Bali	<i>balu</i>	‘dove’
MM:	Tigak	<i>valus</i>	‘dove’
MM:	Patpatar	<i>balus</i>	‘big black and white pigeon’
MM:	Tolai	<i>bəlu</i>	‘generic for pigeons, esp. Island Imperial Pigeon, <i>Ducula pistrinaria</i> ’
MM:	Nehan	<i>baluh</i>	‘ <i>Ducula pistrinaria</i> ’
MM:	Tinputz	<i>banus</i>	‘ <i>Ducula</i> spp.’
cf. also:			
MM:	Roviana	<i>baruku</i>	‘fruit pigeon’
MM:	Simbo	<i>ba(r)yu</i>	‘pigeon sp.’
MM:	Maringe	<i>bal^hu</i>	‘pigeon (generic)’
MM:	Kia	<i>babaluhu</i>	‘pigeon’

Note that the New Georgia and Santa Isabel words listed under ‘cf. also’ reflect the wrong final consonant.

POc **bona* ‘pigeon, *Ducula* sp.’

MM:	Tolai	<i>bonbon</i>	‘pigeon sp.’
MM:	Ramoaina	<i>(kūru) bonbon</i>	‘Island Imperial Pigeon, <i>Ducula pistrinaria</i> ’
NCV:	Mota	<i>p^wona</i>	‘a pigeon’
		<i>mala-p^wona</i>	‘ <i>Ptilinopus</i> spp.’
NCV:	Lakon	<i>p^wɔn</i>	‘Pacific Pigeon, <i>Ducula pacifica</i> ’
NCV:	Raga	<i>man-bona</i>	‘ <i>Ducula pacifica</i> ’
NCV:	Apma	<i>bihil-bon</i>	‘ <i>Ducula</i> spp.’

Probable borrowing from a North Vanuatu language:

Pn:	Pileni	<i>nu- mbona</i>	‘pigeon’
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Probably a local development of the above are the following Solomons forms reflecting **boRa*:

MM:	Nehan	<i>bor</i>	‘Grey-breasted Quail Dove, <i>Gallicolumba beccarii</i>) and ground doves generally’
MM:	Maringe	<i>bora</i>	‘variety of <i>balhu</i> [pigeon] found in forest’
MM:	Kia	<i>bora</i>	‘Knob-billed Fruit Dove, <i>Ptilinopus insolitus</i> ’

SES:	Bugotu	<i>bora</i>	‘pigeon’
SES:	Gela	<i>bola</i>	‘pigeon spp.’
SES:	To’aba’ita	<i>bola</i>	‘pigeon, probably <i>Ducula</i> sp.’
SES:	Kwara’ae	<i>bola</i>	‘pigeon like <i>kurukuru</i> but lives inland’
SES:	Kwaio	<i>bola</i>	‘pigeon’
SES:	’Are’are	<i>pora</i>	‘a pigeon’

Like PPn **tū* below, an undoubtedly imitative name, but locally focused on a single species:

Proto North Vanuatu **tutu* ‘Baker’s Pigeon, *Ducula bakeri*’⁸

NCV:	Mota	(<i>man</i>) <i>tut</i>	‘kind of Vanua Lava pigeon that cries <i>tut</i> ’
NCV:	Mwotlap	<i>nu-tut</i>	
NCV:	Lakon	<i>tut</i>	
NCV:	Raga	<i>tutu</i>	
NCV:	Wusi (Nokovula)	(<i>manu</i>) <i>tu</i>	
NCV:	Matantas	(<i>na-nohu</i>) <i>tu</i>	
NCV:	Kiai	(<i>mu</i>) <i>tu</i> -(<i>nu</i>) <i>tu</i>	(second name)

Although the following is in near-complementary distribution with POc **bune*, and could almost be a metathetic development of it, Bauan at least contrasts the two terms.

PCP **ru(b,v)e* ‘Pacific Pigeon, *Ducula pacifica*’

Fij:	Bauan	<i>ruve</i>	‘Pacific Pigeon, <i>Ducula pacifica</i> , or White-throated Pigeon, <i>Columba vitiensis</i> ’
Pn:	Tongan	<i>lupe</i>	
Pn:	Niuean	<i>lupe</i>	
Pn:	Samoaan	<i>lupe</i>	
Pn:	E Futunan	<i>lupe</i>	
Pn:	Tuvalu	<i>lupe</i>	
Pn:	Luangiua	<i>lupe</i>	
Pn:	Sikaiana	<i>lupe</i>	
Pn:	Rennellese	<i>gupe</i>	
Pn:	Tikopia	<i>rupe</i>	
Pn:	Marquesan	<i>ʔupe</i>	‘Marquesas Pigeon, <i>Ducula galeata</i> ’
Pn:	Tahitian	<i>rupe</i>	‘Society Islands Pigeon, <i>Ducula aurorae</i> ’
Pn:	Rarotongan	<i>rupe</i>	
Pn:	Māori	<i>rupe</i>	‘New Zealand Pigeon, <i>Hemiphaga novaeseelandiae</i> ’

Probable Polynesian loans:

TM:	Buma	(<i>te</i>) <i>lupe</i>	‘pigeon spp.’
Mic:	Kiribati	<i>rupe</i>	‘Micronesian Pigeon, <i>Ducula oceanica</i> ’
Fij:	Rotuman	<i>rupe(vao)</i>	‘bird sp.’ (<i>vao</i> ‘forest’)

⁸ cf. PAn **tuRtuR* ‘resonant sound’ (Blust 1995)

5.8.2 Fruit Doves (*Ptilinopus*)POc *g(a)umu ‘Fruit Dove, *Ptilinopus* sp.’

NNG:	Yabem	(mɔʔ)ʷgom	‘dove’ (mɔʔ ‘bird’)
NNG:	Bing	gūmgum	
PT:	Ubir	kum(ag)	‘blue pigeon’
SES:	’Are’are	(ku)kumu	‘pigeon’
SES:	Arosi	(kumu)kumu	‘pigeon sp.’
NCV:	Matantas	na-kauma	
NCV:	Rerep	ŋaum	
NCV:	Neve’ei	(nav)goum	‘large Tanna fruit dove’
SV:	Lenakel	(təma)kum	‘k. bird, like <i>punhūa</i> but larger’
SV:	Kwamera	(təmə)kum	‘k.o. <i>pinharov</i> , red-bellied fruit dove’

Proto SE Solomonic *va(o,u) ‘Fruit Dove, *Ptilinopus* sp.’

SES:	Malango	(bela)vau	‘Yellow-bibbed Fruit Dove, <i>Ptilinopus solomonensis</i> (female)’
SES:	To’aba’ita	fao	‘dove sp., green with yellow breast’
SES:	Kwara’ae	fao	‘bird sp., not very big, powdery-white like pigeon (<i>bola</i>)’
		fau	‘Red-bibbed Fruit Dove, <i>Ptilinopus viridis</i> ’

PNCV *v^weru ‘Fruit Dove, *Ptilinopus* sp.’

NCV:	Mota	wir	‘a bird’
NCV:	Vurës	wiria	‘Grey’s Fruit Dove, <i>Ptilinopus greyii</i> ’
NCV:	NE Ambae	were (memea)	‘ <i>Ptilinopus greyii</i> ’ (memea ‘red’)
NCV:	Raga	v ^w eru	‘ <i>Ptilinopus greyii</i> ’
NCV:	Naman	nu-vire	‘bird sp.’
NCV:	Tape	v ^w iri	‘ <i>Ptilinopus greyii</i> ’
NCV:	Larëvat	na-ver	‘Silver-shouldered Fruit Dove, <i>Ptilinopus tannensis</i> ’

PNCV *tobaka ‘Fruit Dove, *Ptilinopus* sp.’

NCV:	NE Ambae	tobaka	‘Silver-shouldered Fruit Dove, <i>Ptilinopus tannensis</i> ’
NCV:	Kiai	tipa	‘ <i>Ptilinopus tannensis</i> ’
NCV:	Araki	tipa	‘ <i>Ptilinopus tannensis</i> ’
NCV:	Nese	(novo)todak	‘ <i>Ptilinopus tannensis</i> ’
NCV:	Nguna	tokopea	‘dove’
NCV:	S Efate	tokape	‘ground dove, <i>Chalcophaps</i> ’

POc *(k,g)upuR ‘pigeon or dove’

MM:	Patpatar	kuhur	‘ground dove’
MM:	Tolai	kuvur	‘pigeon sp.’
MM:	Nduke	kukuvu	‘Island Imperial Pigeon, <i>Ducula pistrinaria</i> ’

MM:	Roviana	<i>kukuva</i>	‘small green dove sp.’
SES:	Gela	<i>kuvu</i>	‘pigeon sp., very small, yellowish breast’
SES:	‘Are’are	<i>kuvu</i>	‘a wood pigeon’
SES:	Bauro	<i>kuhui</i>	‘Red-bibbed Fruit Dove, <i>Ptilinopus viridis</i> ’

5.8.3 Ground-feeding pigeons

The following appears to be a local survival of a term reconstructible for PMP, but the glosses, even within the SE Solomonic subgroup, are confusingly diverse.

PMP *-*muken* ‘omen dove’ (Blust 2002)

POc *((*l,R*)(*a,u*))*muk*^(w)*o* ‘dove sp.’

SES:	Gela	<i>lumuko</i>	‘ground pigeon sp.’
SES:	Malango	<i>muko</i>	‘Mackinlay’s Cuckoo Dove, <i>Macropygia mackinlayi</i> ’
SES:	Lau	<i>lamo</i>	‘dove’
SES:	Kwaio	<i>lamu?o</i>	‘small red bird in mountainous interior, a ground feeder’
SES:	Bauro	<i>rumoyo</i>	‘Brown-backed Emerald Dove, <i>Chalcophaps stephani</i> ’

POc *-*butir* ‘pigeon sp.’

NNG:	Adzera	<i>busir</i>	‘pigeon’
NNG:	North Watut	<i>boser</i>	‘dove’
PT:	Wedau	<i>butura</i>	‘blue pigeon’
MM:	Patpatar	<i>buten</i>	‘imperial pigeon’
MM:	Nduke	<i>buti</i>	‘Brown-backed Emerald Dove, <i>Chalcophaps stephani</i> ’
MM:	Roviana	<i>buti</i>	‘bird like a small pigeon, brown breast, green back, eats canarium nuts’
NCV:	N Ambrym	(<i>min</i>) <i>buis</i>	‘large Tanna fruit dove’

An isolated Micronesian form appears as a possible cognate of this set, Kiribati *pitin* ‘ground dove, *Gallicolumba* sp.’. The exact species reference of the Kiribati term is unclear. However, Pratt et al. (1987:194-5) indicate that this bird was introduced to Kiribati (Abemama) about 1940 from some other Pacific island. Since none of the possible source islands have words resembling *bitin*, it would seem much more likely that this name (phonetically [pisin]) is a borrowing from English *pigeon*.

PSOc *-*m^waRaki* ‘Emerald Dove, *Chalcophaps indica*’ (John Lynch, pers. comm.)

NCV:	Mota	<i>m^wara</i>	‘a dove’
NCV:	Lakon	<i>m^wæræy</i>	
NCV:	Raga	<i>m^warayi</i>	
NCV:	Matantas	<i>na-mahi</i>	
NCV:	Kiai	(<i>vo</i>) <i>mae</i>	
NCV:	Atchin	(<i>wo</i>) <i>mere</i>	‘bird sp.’

NCV:	Naman	(vo)mar	
NCV:	Neve'ei	(na-v)mar	
NCV:	Tape	(na-v ^{wi})mar	
NCV:	Avava	(ap)mar	
NCV:	Larēvat	(ave)mar	
NCV:	Nese	(no-vo)may	
NCV:	Labo	(na-v)maxa	
NCV:	Axamb	(na-vi)m ^{wer}	
NCV:	SE Ambrym	mai	
NCV:	Paamese	amē	
NCV:	Namakir	mar	'ground dove'
SV:	N Tanna	m ^{wak}	'dove'
SV:	Kwamera	mak	'pigeon or dove (generic)'

PPn *tū 'ground dove'

Pn:	Tongan	tū	'Friendly Quail Dove, <i>Gallicolumba stairi</i> '
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PNPn *tū, *tū-kele 'ground dove'

Pn:	E Futunan	tū	'Purple-capped Fruit Dove, <i>Ptilinopus porphyraceus</i> '
		tū-kele	' <i>Gallicolumba stairi</i> '
Pn:	Samoa	tū-ʔaimeo	' <i>Gallicolumba stairi</i> (female and young)'
		tū-tautifa	' <i>Gallicolumba stairi</i> (male)'
Pn:	Emae	tū-kere	'Emerald Dove, <i>Chalcophaps indica</i> '
Pn:	Imere	tū-kere	' <i>Chalcophaps indica</i> '
Pn:	Māori	tu-kere	'bird sp. remembered in proverbs'

The absence of glottal stop in the Tongan and E Futunan forms shows that this name is likely imitative of the species' voice, rather than derived from *tuʔu* 'stand' (referring to the species' ground-feeding habits). However, in languages where the glottal stop has been lost the two would be homophonous, and *tū-kere* may be understood by present day speakers as 'stands on the ground'.

5.8.4 Other species

POc *woku 'Cuckoo Dove, *Macropygia* sp.'

MM:	Nakanai	(ka)voku	'bird sp.'
MM:	Tolai	(to)vok	'bird sp.'
MM:	Banoni	boku	'Mackinlay's Cuckoo Dove, <i>Macropygia mackinlayi</i> '
MM:	Nduke	oku	'prob. <i>Macropygia mackinlayi</i> '
MM:	Simbo	voku	'bird sp.'
SES:	Bugotu	(ka)vuku	'pigeon'
SES:	Gela	(ka)vuku	'a dove'
SES:	Malango	(ka)vuku	' <i>Ptilinopus</i> sp.'
SV:	Ura	(uvor)wok	'White-throated Pigeon, <i>Columba vitiensis</i> '
SV:	Sye	(no-yol)woy	' <i>Columba vitiensis</i> '

Imitative naming is a high probability here; cf. PAN **qekuj* ‘owl’, PWMP **bekur* ‘coo, turtle dove’, PMP **bukaw* ‘owl sp.’ (Blust 2002). The voice of *M. mackinlayi* is represented as ‘kor-wu’ or ‘vo-ku’ (Hadden 2004a:114). A metathetic variant is represented by Teop (MM) *uvo* ‘*Macropygia mackinlayi*’, cf. Koiari (Papuan) *kuvo* ‘Lesser Bar-tailed Cuckoo Dove, *Macropygia nigrirostris*’.

PSOc **taroap(v)* ‘White-throated Pigeon, *Columba vitiensis*’ (John Lynch, pers. comm.)

PNCV **taroa* ‘White-throated Pigeon, *Columba vitiensis*’

NCV: Mota	<i>taroa</i>	‘pigeon sp.’
NCV: Lakon	<i>tarɔ</i>	
NCV: Matantas	<i>na-taroa</i>	
NCV: Kiai	<i>taroa</i>	
NCV: Naman	<i>doro</i>	
NCV: Neve’ei	<i>no-toro</i>	
NCV: Big Nambas	<i>toro</i>	
NCV: SE Ambrym	<i>teau</i>	
NCV: Paamese	<i>talɔ</i>	‘bird sp.’
NCV: Lewo	<i>tewa</i>	‘bird (smaller than <i>kupa</i>)’
NCV: Namakir	<i>taro</i>	‘black bird sp.’
NCV: Nguna	<i>taroa</i>	‘pigeon sp.’
NCV: S Efate	<i>tarɔ</i>	‘bush bird sp.’
NCal: Fwâi	<i>dāp</i>	
NCal: Cèmuhi	<i>(íúíá)-jāap</i>	<i>(íúíá)</i> ‘New Caledonian Pigeon, <i>Ducula goliath</i> ’)
NCal: Paicî	<i>(déa)jéé</i>	

Proto North Vanuatu **toava* ‘Mackinlay’s Cuckoo Dove, *Macropygia mackinlayi*’

NCV: Mwotlap	<i>nɔ-tɔap</i>
NCV: Vera’a	<i>ʔoava</i>
NCV: Vurës	<i>tɔav</i>

Proto Central Vanuatu **b^waueve* ‘Mackinlay’s Cuckoo Dove, *Macropygia mackinlayi*’

NCV: Raga	<i>b^waueve</i>	
NCV: SE Ambrym	<i>vūeh</i>	
NCV: Paamese	<i>vouehe</i>	
NCV: Namakir	<i>toɔ</i>	‘long-tailed pigeon sp.’

The following set undoubtedly owes something to imitation of typical pigeon ‘coo’ vocalizations—low pitched but with strong formant structure. Compare the Wayan Fijian name for a species introduced from Asia in modern times: *kukurū* ‘Spotted-necked Dove, *Streptopelia chinensis*’.

POc **(ku(r,l)u)ku(r,l)u* ‘pigeon sp.’

NNG: Takia	<i>kula-kulu</i>	‘pigeon sp.’
PT: Gapapaiwa	<i>kuyu-kuyu</i>	‘fruit dove, <i>Ptilinopus</i> sp.’
PT: Mekeo	<i>kūr</i>	‘pigeon/dove’ (Schellong & Carolsfeld 1890)
MM: Nakanai	<i>kuru</i>	‘dove, pigeon’

MM:	Ramoaaaina	<i>kūru</i>	‘a pigeon’ [<i>Ducula</i> , <i>Macropygia</i>]
MM:	Tolai	<i>kur</i>	‘Brown’s Long-tailed Pigeon, <i>Reinwardtoena browni</i> ’
MM:	Nehan	<i>kū(i)lū</i>	‘pigeon/dove’ (Schellong & Carolsfeld 1890)
MM:	Petats	<i>kulu</i>	‘the blue wild pigeon’
MM:	Halia	<i>kulu</i>	‘Island Imperial-Pigeon, <i>Ducula pistrinaria</i> , or Red-knobbed Pigeon, <i>Ducula rubricera</i> ’
MM:	Torau	<i>ku-kuru</i>	‘ <i>Ducula pistrinaria</i> ’
MM:	Marovo	<i>kuru-kuru</i>	‘ <i>Ducula pistrinaria</i> and similar spp.’
MM:	Nduke	<i>ku-kuru (peka)</i>	‘k. fruit dove, similar to <i>Ducula rubricera</i> , but lives in mountains’
		<i>kuru</i>	‘ <i>Ducula</i> spp.’
SES:	Gela	<i>kuru-kuru</i>	‘white pigeon sp.’
SES:	Malango	<i>kulu-kulu</i>	‘Chestnut-bellied Pigeon, <i>Ducula brenchleyi</i> ’
		<i>kuru-kuru</i>	‘ <i>Ducula rubricera</i> ’
SES:	Kwara’ae	<i>kuru-kuru</i>	‘dove like <i>bola</i> but lives on the sea’
SES:	Kwaio	<i>kulu-kulu</i>	‘bird sp.’
SES:	Sa’a	<i>kuru-kuru (ni Malau)</i>	‘pigeon sp. without wattles on the beak’
			(<i>malau</i> ‘island’, also place name)
		<i>kolo-kolo</i>	‘Crested Long-tailed Pigeon, <i>Reinwardtoena crassirostris</i> ’
SES:	Ulawa	<i>kuru-kuru</i>	‘wood pigeon (generic)’
SES:	Uki ni Masi	<i>kuru-kuru (ni wapu)</i>	‘ <i>Ducula brenchleyi</i> ’ (<i>wapu</i> ‘forest’)
Fij:	Bauan	<i>kulu(votu)</i>	‘Many-coloured Fruit Dove, <i>Ptilinopus perousii</i> ’
		<i>gilu</i>	‘Friendly Quail Dove, <i>Gallicolumba stairii</i> ’
Pn:	Tongan	<i>kulu-kulu</i>	‘Purple-capped Fruit Dove, <i>Ptilinopus porphyraceus</i> ’
Pn:	Niuean	<i>kulu-kulu</i>	‘ <i>Ptilinopus porphyraceus</i> ’
Pn:	E Uvean	<i>kulu-kulu</i>	‘ <i>Ptilinopus porphyraceus</i> ’
Pn:	Emae	<i>kulu-kulu</i>	‘ <i>Ptilinopus</i> spp.’
cf. also:			
NNG:	Gedaged	<i>kududuk</i>	‘bird like small dove, bluish green’

POc **kurau* ‘pigeon sp.’

NNG:	Poeng	<i>kulao</i>	‘great cuckoo-dove’
MM:	Nduke	<i>kuratu</i>	‘Pale Mountain Pigeon, <i>Gymnophaps solomonensis</i> ’
			(-t- unexplained)
MM:	Vangunu	<i>kərao</i>	‘red-knobbed pigeon’
SES:	Gela	<i>kura-kurau</i>	‘green and white pigeon sp. with red crest’
SES:	Tolo	<i>kuau</i>	‘bird sp. which feeds on nuts’
SES:	Malango	<i>kurau</i>	‘Nicobar Pigeon, <i>Caloenas nicobarica</i> ’
SES:	’Are’are	<i>urau</i>	‘pigeon’
SES:	Sa’a	<i>urou</i>	‘wood pigeon with large wattles’
cf. also:			
SES:	Bauro	<i>kuv^wau</i>	‘Red-knobbed Pigeon, <i>Ducula rubricera</i> ’

		<i>kuv^wau (mano)</i>	‘White-throated Pigeon, <i>Columba vitiensis</i> ’
Pn:	Rennellese	<i>kiou</i>	‘small <i>Ducula</i> sp.’ (borrowed from a SES language)

PEOc **belik(e,i)o* ‘pigeon sp.’

SES:	Gela	<i>belikokeo</i>	‘pigeon sp., black with red beak’
NCV:	Naman	<i>beligio</i>	
NCV:	Neve’ei	<i>ni-b^wiligio</i>	
NCV:	Larëvat	<i>balgio</i>	
NCV:	Nese	<i>na-ble</i>	

PROc **soge* ‘pigeon sp.’

NCV:	Nasarian	<i>nə-so^g</i>	‘black pigeon of the mountains’
Fij:	Bauan	<i>soge</i>	‘Peale’s Pigeon, <i>Ducula latrans</i> ’
		<i>soge(loi)</i>	‘White-throated Pigeon, <i>Columba vitiensis</i> ’ (<i>loi</i> ‘black’)
Fij:	Wayan	<i>soge</i>	‘Peale’s Pigeon, <i>Ducula latrans</i> ’

POc **b^waruruk* ‘pigeon or dove sp.’

NNG:	Takia	<i>pururuk</i>	‘pigeon sp.’
SES:	Malango	<i>(manu) pururu</i>	‘Brown-backed Emerald Dove, <i>Chalcophaps stephani</i> ’
SES:	Sa’a	<i>(ta)p^waruru</i>	‘bronze-wing dove’
SES:	Bauro	<i>b^woroau</i>	‘Crested Long-tailed Pigeon, <i>Reinwardtia crassirostris</i> ’
NCV:	Nguna	<i>p^woruru</i>	‘to coo’
cf. also:			
MM:	Tolai	<i>bilul</i>	‘Nicobar Pigeon, <i>Caloenas nicobarica</i> ’

Possibly cognate are forms in SHWNG languages (Ansus *mambaru*, Biak *mambruk*) referring to the Crowned Pigeons (*Goura* spp.) (Anceaux 1961).

5.9 Parrots (Loriidae, Cacatuidae, Psittacidae)

The three families united here are represented by nine diverse genera in the homeland. By far the largest bird, not confusable with any other, is the Blue-eyed Cockatoo (*Cacatua ophthalmica*). The large Eclectus Parrot (*Eclectus roratus*) shows striking sexual dimorphism, with males (green) and females (red) often lexically distinguished. The Rainbow Lory (*Trichoglossus haematodus*) is probably the most conspicuous and widespread parrot in western Oceania. Among other middle-sized parrots are the Cardinal Lory (*Chalcopsitta cardinalis*), the Purple-bellied Lory (*Lorius hypoinochrous*) and the Singing Parrot (*Geoffroyus heteroclitus*). Smaller parrots include two Lorikeets of the genus *Charmosyna*, which, along with the closely related genus *Vini*, are found as far as eastern Polynesia. Smallest of all are the

Pygmy Parrots of genus *Micropsitta* and the Orange-fronted Hanging Parrot (*Loriculus aurantiifrons*). For the last (which is found no further east than New Guinea) not a single name was found in any of the sources.

5.9.1 Cockatoos

Only Papuan Tip languages supply sufficient cognates to support reconstructions for these birds. That the first term may be traceable to POc, however, is suggested by possible cognates in SHWNG languages such as Ansus *kara*, Serui-Laut *karai*, Ambai *kara* ‘cockatoo’ (Anceaux 1961).

PPT **karai* ‘white cockatoo’

PT:	Wagawaga	<i>kehoi</i>	
PT:	Dobu	<i>keyoi</i>	
PT:	Wedau	<i>keloi</i>	
PT:	Sinaugoro	<i>karai</i>	
PT:	Hula	<i>kalai</i>	
PT:	Motu	<i>karai</i>	‘cockatoo’

PPT **wakeke*~**kakawe* ‘Sulphur-crested Cockatoo, *Cacatua galerita*’

PT:	Tubetube	<i>wakeke</i>	‘cockatoo’
PT:	Suau	<i>wakeke</i>	‘cockatoo’
PT:	Iduna	<i>kakawe</i>	
PT:	Bwaidoga	<i>kakawe</i>	‘white cockatoo’
		<i>wakeke</i>	(northern dialect)
PT:	Roro	<i>iaveiave</i>	‘white cockatoo’
PT:	Mekeo	<i>aveave</i>	‘bird sp.’

Compare perhaps:

MM:	Nduke	<i>vak’voa</i>	‘Ducorps Cockatoo, <i>Cacatua ducorps</i> ’
MM:	Maringe	<i>veya</i>	‘ <i>Cacatua ducorps</i> ’

5.9.2 The Eclectus Parrot

This large parrot (*Eclectus roratus*) is most notable for its sexual dimorphism, with the predominantly red-plumaged female and green-plumaged male sometimes being separately lexicalised. The first two reconstructions are similar in form, and appear to refer to the male. Unfortunately, sources for the few languages that reflect both the shorter and longer term are unhelpful as to the distinction of meaning. Apparent reflexes of the first reconstruction extend well beyond the range of the Eclectus, and are applied to various other species, eventually reaching as far as New Zealand.

POc **kaRa* ‘male Eclectus Parrot, *Eclectus roratus*’

NNG:	Yabem	<i>kala?</i>	‘the green male parrot’
NNG:	Bariai	<i>kala</i>	‘parrot’
NNG:	Kove	<i>kaha</i>	‘parrot’

NNG:	Lusi	<i>kara</i>	‘parrot’
NNG:	Kilenge	<i>(ai)kala</i>	‘parrot’
MM:	Halia (Haku)	<i>kala-kala</i>	‘Eclectus Parrot’
MM:	Marovo	<i>kara</i>	‘ <i>Eclectus roratus</i> ’
MM:	Nduke	<i>(ma)kara</i>	‘ <i>Eclectus roratus</i> ’
MM:	Roviana	<i>kara</i>	‘general name for parrots’
MM:	Simbo	<i>(ma)kara</i>	‘ <i>Eclectus roratus</i> ’
MM:	Kia	<i>(ma)kara</i>	‘green parrot’
MM:	Maringe	<i>(ma)k(h)ara</i>	‘ <i>Eclectus roratus</i> ’ (Webb 1992), ‘green parrot’ (Tryon 1995)
SES:	Gela	<i>kalao</i>	‘green parrot sp.’
SES:	To’aba’ita	<i>a-ʔala</i>	‘ <i>Eclectus roratus</i> ’
SES:	Kwaio	<i>a-ʔala</i>	‘ <i>Eclectus roratus</i> ’
SES:	’Are’are	<i>ara</i>	‘large green parrot, red under wings’
SES:	Sa’a	<i>ʔa-ʔa</i>	‘ <i>Eclectus roratus</i> ’
SES:	Uki ni Masi	<i>ʔala</i>	‘ <i>Eclectus roratus</i> ’
SES:	Bauro	<i>yara</i>	‘ <i>Eclectus roratus</i> ’
Fij:	Bauan	<i>ka-kā</i>	‘Shining Parrot, <i>Prosopeia</i> spp.’
Fij:	Wayan	<i>ka-kā</i>	‘possibly Collared Lory, <i>Phigys solitarius</i> ’
Pn:	Tongan	<i>ka-kā</i>	‘Red Shining Parrot, <i>Prosopoeia tabuensis</i> ’
Pn:	Tahitian	<i>(e)ʔa-ʔa</i>	‘green parrot sp. with red forehead’ (Forster 1775) [probably <i>Cyanoramphus</i> sp.]
Pn:	Māori	<i>kā-kā</i>	‘parrot spp.’

PWOC **ka(l,R)ana(r,R)* ‘male Eclectus Parrot, *Eclectus roratus*’

NNG:	Bariai	<i>kalanja-n</i>	‘parrot’
NNG:	Kove	<i>kahana-ni</i>	‘parrot’
NNG:	Lusi	<i>karanja-ni</i>	‘parrot’
NNG:	Gedaged	<i>ilaŋ</i>	‘k. parrot, male green and red, blue and red’
NNG:	Amara	<i>a-kalanar</i>	‘parrot’
NNG:	Kilenge	<i>ai-kalanja</i>	‘parrot’
NNG:	Mouk	<i>kalanja</i>	‘parrot’
NNG:	Kaulong	<i>(ekin) kalaŋ</i>	‘parrot’
NNG:	Lamogai	<i>kalanja</i>	‘parrot’
NNG:	Sengseng	<i>kahalaŋ</i>	‘parrot’
NNG:	Mengen (Poeng)	<i>kerana</i>	‘Eclectus Parrot; parakeet (?) likes corn, banana, papaya’
PT:	Bwaidoga	<i>anegala</i>	‘parrot sp.’
PT:	Tawala	<i>kanagala</i>	‘parrot’
PT:	Wedau	<i>kanagara</i>	‘parrot’
PT:	Kilivila	<i>karaga</i>	‘green parrot’
PT:	Nimoa	<i>heleŋe</i>	‘parrot sp.’
PT:	Balawaia	<i>yalaga</i>	‘parrot’
PT:	Hula	<i>alaka</i>	‘green lorikeet’
PT:	Mekeo	<i>alana</i>	‘common green parrot, female red’

MM:	Vitu	<i>yalaja</i>	‘ <i>Eclectus roratus</i> ’
MM:	Nakanai	<i>kalanjan</i>	‘ <i>Eclectus roratus</i> ’
MM:	Tabar	<i>garagar</i>	‘ <i>Eclectus roratus</i> ’
MM:	Patpatar	<i>kalanjar</i>	‘parrot sp.’
MM:	Tolai	<i>kəlanjəra</i>	‘ <i>Eclectus</i> Parrot (red)’
MM:	Nehan	<i>kalanjara</i>	‘ <i>Eclectus</i> Parrot’
MM:	Petats	<i>kanakana</i>	‘large green fruit-eating parrot’
MM:	Banoni	<i>karaka</i>	‘male <i>Eclectus</i> Parrot’

POc **k*^(w)*ilo(ki)* ‘female *Eclectus* Parrot’

PT:	Balawaia	<i>kiloki</i>	‘dark green bird sp.’
PT:	Hula	<i>kiloki</i>	‘lovebird’
PT:	Motu	<i>kiole</i>	‘parrot sp.’ (metathesis of † <i>kilo(γ)i</i>)
MM:	Simbo	<i>kilo</i>	‘parrot sp.’
MM:	Maringe	<i>na-klio</i>	‘red and green parrot, possibly female of <i>makara</i> ’
SES:	Gela	<i>kilo</i>	‘red parrot sp.’
SES:	Longgu	<i>kilo</i>	‘red parrot (female)’
SES:	To’aba’ita	<i>kiro</i>	‘female <i>Eclectus</i> ’
SES:	Kwaio	<i>(liko-liko)</i>	‘Yellow-bibbed Lory, <i>Lorius chlorocercus</i> ’ (metathesis)
SES:	’Are’are	<i>riko-riko</i>	‘a parrot, tamed as a pet’ (metathesis)
SES:	Sa’a	<i>ilo-iloʔa</i>	‘large red parrot, female of <i>ʔaʔa</i> ’
SES:	Arosi	<i>riko-riko</i>	‘a parrot, tamed as a pet’ (metathesis)

The following term may also be associated with *Eclectus*. Cf. POc **keRaŋ* ‘hawksbill turtle’ (ch. 5, 250), a name which is eventually re-applied to a parrot in New Zealand (Māori *kea* ‘*Nestor notabilis*’).

POc **kiRak* ‘parrot sp.’

PT:	Gapapaiwa	<i>kira-kiraka</i>	
PT:	Wedau	<i>kira-kirako</i>	‘parrot’
MM:	Tinputz	<i>ki-kire</i>	‘ <i>Eclectus</i> parrot’
MM:	Banoni	<i>kire</i>	‘(red) <i>Eclectus</i> parrot’
MM:	Babatana	<i>kira</i>	‘lorikeet’
MM:	Marovo	<i>kira</i>	‘medium sized parrots, between chiri and kara’
MM:	Kia	<i>ki-kila</i>	‘Blue-streaked Lory, <i>Eos reticulata</i> ’
MM:	Maringe	<i>kʰie-kile</i>	‘small green bird’
SES:	Malango	<i>kira</i>	‘ <i>Eclectus</i> Parrot, <i>Eclectus roratus</i> ’
SES:	Lau	<i>kil-kila</i>	‘green parrot’
SES:	Kwara’ae	<i>kila</i>	‘palm lorikeet (green, yellow, red)’
SES:	Sa’a	<i>kile-kile</i>	‘Rainbow Lory, <i>Trichoglossus haematodus</i> ’
SES:	Arosi	<i>kira-kira</i>	‘small green parrot’

5.9.3 Middle-sized parrots

The following four reconstructions appear to be cut from the same basic form: the first with a three-consonant sequence, and each of the others missing one of the three. It would be natural to treat the others as simply variously reduced forms of the longest form, but there are apparent contrasts in several languages. The references are to medium-sized parrots (*Chalcopsitta*, *Lorius*, *Trichoglossus*), but it is difficult to see any consistent association between a particular species and any of these forms. Beyond the Solomons, the first two species disappear, and these terms are applied to *Trichoglossus*, or in New Caledonia to the parakeets of genus *Cyanoramphus*.

POc **sipi(r;R)i* ‘Rainbow Lory, *Trichoglossus haematodus*, or Cardinal Lory, *Chalcopsitta cardinalis*’

Adm:	Lou	<i>sipir</i>	‘parrot-like bird’
NNG:	Takia	<i>siwir</i>	‘ <i>Trichoglossus haematodus</i> ’
PT:	Balawaia	<i>rivili</i>	‘small green parrot’
PT:	Lala	<i>sivili</i>	‘small parrot with green neck’
PT:	Mekeo	<i>cipili, kipili</i>	‘a noisy parrot’
MM:	Teop	<i>subiri</i>	‘ <i>Chalcopsitta cardinalis</i> ’
SES:	Bugotu	<i>siviri</i>	‘red parrot’
TM:	Buma	<i>vili</i>	‘Palm Lorikeet and Rainbow Lorikeet’
NCV:	Mota	<i>sivure</i>	‘a parrot’
NCV:	Nume	<i>(we)svur</i>	‘ <i>Trichoglossus haematodus</i> ’
NCV:	Raga	<i>siviru</i>	‘ <i>Trichoglossus haematodus</i> ’
NCV:	Neve’ei	<i>ni-n-sivir</i>	‘ <i>Trichoglossus haematodus</i> ’
NCV:	Nese	<i>ni-civir</i>	‘ <i>Trichoglossus haematodus</i> ’
NCV:	Nasarian	<i>na-sivərə</i>	‘ <i>Trichoglossus haematodus</i> ’
NCV:	Labo	<i>ni-sivəxə</i>	‘ <i>Trichoglossus haematodus</i> ’
NCV:	Port Sandwich	<i>sivir</i>	‘ <i>Trichoglossus haematodus</i> ’
NCV:	Lewo	<i>leviri</i>	‘parrot sp., red with green neck’
NCV:	Nguna	<i>siviri</i>	‘parrot sp., red chest, green and yellow wings’
SV:	Kwamera	<i>sivur</i>	‘ <i>Trichoglossus haematodus</i> ’
NCal:	Pije	<i>diwali</i>	‘Red-fronted Parakeet, <i>Cyanoramphus novaezelandiae</i> ’
NCal:	Nengone	<i>sipih</i>	‘parrot (red)’
Pn:	Rennellese	<i>sivigi</i>	‘ <i>Lorius chlorocercus</i> ’
cf. also:			
MM:	Nduke	<i>sivoro</i>	‘Yellow-bibbed Lory, <i>Lorius chlorocercus</i> and Duchess Lorikeet, <i>Charmosyna margarethae</i> ’
MM:	Roviana	<i>sivoro</i>	‘parrot sp. like rosella’
MM:	Maringe	<i>sivoro</i>	‘ <i>Trichoglossus haematodus</i> ’

POc **sipi* ‘parrot, perhaps Cardinal Lory, *Chalcopsitta cardinalis*’

Adm:	Loniu	<i>cihi</i>	‘small parrot’
NNG:	Sengseng	<i>susu</i>	‘parrot’
PT:	Mekeo	<i>ufi</i>	‘mountain parrot sp., blue, prized for its plumes’

MM:	Nehan	<i>sipih</i>	‘ <i>Chalcopsitta cardinalis</i> ’
SES:	Bugotu	<i>sivi</i>	‘parrot sp.’
SES:	Gela	<i>suisui</i>	‘a red parakeet in coconuts’
SES:	Malango	<i>cui</i>	‘Yellow-bibbed Lory, <i>Lorius chlorocercus</i> ’
SES:	Arosi	<i>sivī, divi</i>	‘scarlet parrot sp.’
SES:	Bauro	<i>sivi</i>	‘scarlet parrot sp.’
NCV:	Dorig	<i>siv</i>	‘ <i>Trichoglossus haematodus</i> ’
NCV:	Raga	<i>sivi</i>	‘ <i>Lorius, Trichoglossus haematodus</i> ’
NCV:	Matantas	<i>na-civi</i>	‘ <i>Trichoglossus haematodus</i> and Palm Lorikeet, <i>Charmosyna palmarum</i> ’
NCV:	Atchin	<i>na-si</i>	‘parrot sp.’
		<i>šiel</i>	‘parrot sp.’
NCV:	Naman	<i>ni-ncəv</i>	‘ <i>Trichoglossus haematodus</i> ’
NCV:	Paamese	<i>sīho</i>	‘parrot’
Pn:	Takuu	<i>sivi</i>	‘ <i>Chalcopsitta cardinalis</i> ’
Pn:	Luangiua	<i>sivo</i>	‘red parrot’
Pn:	Tikopia	<i>sivi</i>	‘ <i>Trichoglossus haematodus</i> ’

POc **siri* ‘parrot, perhaps Cardinal Lory, *Chalcopsitta cardinalis*’

PT:	Wedau	<i>tiri(rama), siri(rama)</i>	‘long-tailed parrot sp.’
MM:	Mono-Alu	<i>(ulu)sili</i>	‘red parrot’
MM:	Marovo	<i>ciri</i>	‘ <i>Charmosyna</i> sp. (?) and small parrots generally’ (also modified = <i>Trichoglossus</i>)
MM:	Nduke	<i>siri nabo</i>	‘ <i>Chalcopsitta cardinalis</i> ’
MM:	Roviana	<i>siri</i>	‘red parakeet sp.’
MM:	Simbo	<i>siri</i>	‘red bird sp. that eats coconut’
SES:	Gela	<i>siri</i>	‘small red parrot sp.’
SES:	Malango	<i>ciciri</i>	‘ <i>Chalcopsitta cardinalis</i> ’
		<i>(kolo)ciri</i>	‘ <i>Charmosyna</i> spp.’
SES:	Longgu	<i>suri</i>	‘noisy parrot, lives in coconut trees’
SES:	To’aba’ita	<i>suri(aoa)</i>	‘parrot sp.’
		<i>sū-suri</i>	‘parrot sp.’
SES:	Lau	<i>siri</i>	‘small bird sp.’
		<i>siru</i>	‘long tailed bird sp.’
SES:	Kwaio	<i>suli(kē)</i>	‘Rainbow Lory, <i>Trichoglossus haematodus</i> ’
SES:	’Are’are	<i>siri</i>	‘red hen parrot’
SES:	Sa’a	<i>siri</i>	‘a parrot’
		<i>siri (alaha)</i>	‘Yellow-bibbed Lory, <i>Lorius chlorocercus</i> ’ (<i>alaha</i> ‘chief’)
		<i>siri (uʔu)</i>	‘a lory that hangs head downward’ (<i>uʔu</i> ‘hang down’)
SES:	Uki ni Masi	<i>siri</i>	‘ <i>Chalcopsitta cardinalis</i> ’
SES:	Arosi	<i>siri</i>	‘ <i>Chalcopsitta cardinalis</i> ’
		<i>sire</i>	‘small parrot sp.’

NCV:	Sara	<i>ne-ssere</i>	(Flux 1993)
NCal:	Tinrin	<i>diria</i>	‘parrot’
NCal:	Xârâcùù	<i>jiria</i>	‘ <i>Trichoglossus haematodus</i> ’
NCal:	Drubea	<i>jiría</i>	‘Red-fronted Parakeet, <i>Cyanoramphus novaezelandiae</i> ’

cf. also:

Mic:	Ponapean	<i>serēt</i>	‘Ponape Lory, <i>Trichoglossus rubiginosus</i> ’
Mic:	Mokilese	<i>cerēt</i>	‘ <i>Trichoglossus rubiginosus</i> ’
Pn:	Nukuoro	<i>serete</i>	‘parakeet’

POc **p^wiri(p)* ‘parrot sp.’

MM:	Nduke	<i>vili(sulu)</i>	‘Rainbow Lory, <i>Trichoglossus haematodus</i> ’
MM:	Roviana	<i>vili(suru)</i>	‘small noisy greenish bird often found at coconut and <i>Barringtonia</i> blossoms’
TM:	Buma	<i>vili</i>	‘ <i>Trichoglossus haematodus</i> and Palm Lorikeet, <i>Charmosyna palmarum</i> ’
NCV:	N Efate	<i>vini</i>	
SV:	Ura	<i>ule</i>	‘coconut lory’
SV:	Sye	<i>ure</i>	‘ <i>Trichoglossus haematodus</i> ’
NCal:	Nêlêmwa	<i>p^wīrip</i>	‘Horned Parakeet, <i>Cyanoramphus cornutus</i> ’
NCal:	Caaàc	<i>p^wīrip</i>	‘ <i>Trichoglossus haematodus</i> ’
NCal:	Fwâi	<i>p^wīrip</i>	‘perruche écossaise’ (<i>Trichoglossus haematodus</i>)
Pn:	Samoaan	<i>vilu</i>	‘a large parroquet’
Pn:	Pileni	<i>vili</i>	‘parrot’
Pn:	Tahitian	<i>vini</i>	‘Tahitian Lory, <i>Vini peruviana</i> ’

Proto Malaita-Makira **kirori* ‘parrot sp.’

SES:	Lau	<i>kirori</i>	‘parrot sp.’
SES:	’Are’are	<i>irori</i>	‘a parrot’
		<i>kirori</i>	‘a parrot, finding its food specially on the blossoms of coconut trees; tamed as pets’
SES:	Sa’a	<i>kirori, ʔirori</i>	‘Cardinal Lory, <i>Chalcopsitta cardinalis</i> ’
SES:	Arosi	<i>kirori</i>	‘ <i>Chalcopsitta cardinalis</i> ’

5.9.4 Small parrots

The small parrots of closely related genera *Charmosyna* and *Vini* are referred to by two possibly not independent etyma.

POc **(ka)reŋas* ‘small parrot sp.’

Adm:	Loniu	<i>keʔeŋ</i>	‘parrot sp.’
Adm:	Nyindrou	<i>karen</i>	‘parrot’
Adm:	Titan	<i>kareŋ</i>	‘red parrot, <i>Agapornis roseicollis</i> ’
Adm:	Lou	<i>kareŋ</i>	‘red parrot’

NNG:	Yabem	(mɔ)nden	‘female red parrot’
NNG:	Bing	(iri)ren	‘Emerald Lorikeet, <i>Neopsittacus pullicauda</i> ’
MM:	Petats	renjis	‘the small red honey-eating parrot’
MM:	Tinputz	renge	‘Rainbow Lory, <i>Trichoglossus haematodus</i> ’
NCV:	Mota	reŋa	‘a parrot’
		reŋas	‘Palm Lorikeet, <i>Charmosyna palmarum</i> ’
NCV:	Mwotlap	na-iŋes	‘ <i>Charmosyna palmarum</i> ’
NCV:	Raga	deŋasi	‘ <i>Charmosyna palmarum</i> ’
NCV:	Wusi (Nokovula)	(de)deŋa	‘ <i>Charmosyna palmarum</i> ’
NCV:	SE Ambrym	reŋ	‘ <i>Charmosyna palmarum</i> ’

Probable loanword from a North–Central Vanuatu language:

Pn:	Tikopia	leŋa	‘Duchess Lorikeet, <i>Charmosyna margarethae</i> , also Cardinal Honeyeater, <i>Myzomela cardinalis</i> ’
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The Titan gloss is subject to question, as the lovebirds (*Agapornis* spp.) are native to Africa.

POc *seŋa ‘parrot sp.’

NNG:	Manam	seŋ	‘parrot’
MM:	Nehan	seŋ	‘Rainbow Lory, <i>Trichoglossus haematodus</i> ’
MM:	Halia (Haku)	seŋe	‘ <i>Trichoglossus haematodus</i> ’
Fij:	Bauan	seŋa	‘Blue-crowned Lory, <i>Vini australis</i> ’
Pn:	Tongan	heŋa	‘ <i>Vini australis</i> ’
Pn:	Niuean	heŋa	‘ <i>Vini australis</i> ’
Pn:	E Uvean	heŋa	‘ <i>Vini australis</i> ’
Pn:	E Futunan	seŋa	‘ <i>Vini australis</i> ’
Pn:	Samoa	seŋa(vao)	‘ <i>Vini australis</i> ’
Pn:	Nukuria	te-hēna	‘ <i>Trichoglossus haematodus</i> ’
Pn:	Pileni	eŋa	‘land bird sp.’

5.9.5 Other parrot species

POc *(k^(w),g)i(l,n)e ‘Singing Parrot, *Geoffroyus heteroclitus*’

MM:	Tolai	ŋini-ŋil	‘ <i>Geoffroyus heteroclitus</i> ’
		gili-gil	‘small green parrot sp.’
		gini-gil	‘sea bird allied to parrots’
MM:	Tinputz	ki-kire	
MM:	Nduke	ki-kine	‘Red-breasted Pygmy Parrot, <i>Micropsitta bruijnii</i> ’
MM:	Roviana	kine-kine	‘a parakeet, sometimes tamed and trained to speak’
SES:	Bugotu	kie-kiñe	‘a green parrot’
SES:	Gela	kine-kine	‘green parrot’
SES:	Malango	kina	
SES:	To’aba’ita	kila-kila	
SES:	Bauro	yina	

A loan from a Southeast Solomonian language:

Pn:	Rennellese	yinei	‘Finsch’s Pygmy Parrot, <i>Micropsitta finschii</i> ’
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Figure 6.12 *Phigys solitarius*, Collared Lory

POc *marewe ‘parrot’

MM:	Nakanai	<i>marea</i>	‘parrot’
MM:	Tolai	<i>malip</i>	‘Purple-bellied Lory, <i>Lorius hypoinochrous</i> ’
MM:	Ramoaaaina	<i>marewe</i>	‘ <i>Lorius hypoinochrous</i> ’
MM:	Petats	<i>malei</i>	‘bird (generic)’
MM:	Taiof	<i>marei</i>	‘bird (generic)’
MM:	Torau	<i>marii</i>	‘bird (generic)’
NCV:	Wusi (Nokovula)	<i>maramarei</i>	‘Palm Lorikeet, <i>Charmosyna palmarum</i> ’
NCV:	Atchin	<i>m^wer</i>	‘parrot sp.’

PCP *kula ‘Collared Lory, *Phigys solitarius*’

Fij:	Bauan	<i>kula</i>	
Pn:	Tongan	<i>kula</i>	‘bird sp.’ (Churchward) ‘possibly Cardinal Honeyeater, <i>Myzomela cardinalis</i> ’ (Carlson 1974)
Pn:	Marquesan	<i>kuʔa</i>	‘bird sp.’
Pn:	Tuamotuan	<i>kura</i>	‘bird sp. highly prized for its plumage’
Pn:	Rarotongan	<i>kurā(moʔo)</i>	‘Tahitian Lory, <i>Vini peruviana</i> ’

Polynesian borrowing (the species is a recent introduction from the Austral Islands):

Mic:	Kiribati	<i>kura</i>	‘Kuhl’s Lory, <i>Vini kuhlii</i> ’
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The renown of this parrot’s feathers has produced a range of extended meanings, beyond bird names, as in PPn *kula ‘(bright) red’ and the following:

Pn:	Tikopia	<i>kura</i>	‘honored; of ritual value’
Pn:	W Uvean	<i>kula</i>	‘flying fox fur’
Pn:	Pukapukan	<i>(wulu) kula</i>	‘red feathers from western islands’ (<i>wulu</i> ‘feathers’)
Pn:	Rapanui	<i>kura</i>	‘short, multi-coloured feathers of certain birds’
Pn:	Marquesan	<i>kuwa</i>	‘red, applied to feathers, cloth etc. imported to the islands, also to the scarlet berries or peas used in their ornaments’ (Crook et al. 1799)

Pn:	Tahitian	<i>ʔura</i>	‘red feathers, formerly sacred to the gods’
Pn:	Māori	<i>kura</i>	‘red feathers; ornamented with feathers; precious, treasure’

5.10 Cuckoos (Cuculidae)

Eight species of this family are recorded from the homeland, two as seasonal visitors. They include parasitic cuckoos of the genera *Cuculus*, *Cacomantis*, *Chalcites*, *Urodynamis*, *Urodynamis* and *Scythrops*, and two Coucals of the genus *Centropus*. Names recorded, however, are far fewer than for the parrots with a comparable number of species. Only one small cognate set of Proto Oceanic scope has been found.

POc **seke* ‘cuckoo, possibly *Centropus* sp.’

MM:	Patpatar	<i>sēk</i>	‘cuckoo’
MM:	Nduke	<i>heye-heye</i>	‘ <i>Centropus</i> sp.’
SES:	Malango	<i>sege</i>	‘Buff-headed Coucal, <i>Centropus milo</i> (imm)’

PSOc **Wvusi* ‘cuckoo’ (John Lynch, pers. comm.)

NCV:	Raga	<i>livusi-yala</i>	‘Long-tailed Koel, <i>Urodynamis taitensis</i> ’
NCV:	Matantas	<i>ri-risive(re)</i>	‘Golden-Bronze Cuckoo, <i>Chalcites lucidus</i> ’ (metathesis)
SV:	Kwamera	<i>ia-rovəs</i>	‘ <i>Urodynamis taitensis</i> ’ (metathesis)

PCP **kalewa* ‘Long-tailed Koel, *Urodynamis taitensis*’

Fij:	Rotuman	<i>(si)aʔleva</i>	‘? <i>Urodynamis taitensis</i> ’
Pn:	Tongan	<i>kaleva</i>	
Pn:	Niuean	<i>kalue</i>	
Pn:	E Futunan	<i>kaleva</i>	
Pn:	Samoan	<i>ʔāleva</i>	
Pn:	Pukapukan	<i>kāleva</i>	
Pn:	Tuvalu	<i>kaleva</i>	
Pn:	Takuu	<i>kāreva</i>	
Pn:	Sikaiana	<i>kaleva</i>	
Pn:	Rennellese	<i>kāgeva</i>	‘a large dove or pheasant’
Pn:	Tikopia	<i>kāreva</i>	
Pn:	Marquesan	<i>kāʔeva-ʔeva</i>	
Pn:	Tahitian	<i>ʔāreva-reva</i>	
Pn:	Māori	<i>kārea-rea,</i> <i>kārewa-rewa</i>	‘New Zealand Falcon, <i>Falco novaeseelandiae</i> ’

The Māori reflex above refers to a bird which, though not closely related, has an overall similarity in appearance to the Koel.

PCP **kawekawesā* ‘Long-tailed Koel, *Urodynamis taitensis*’

Fij:	Bauan	<i>kawakasā</i>	‘long-tailed bird sp.’
Fij:	Lau	<i>kawakawasā</i>	‘ <i>Urodynamis taitensis</i> ’
Pn:	Tahitian	<i>ʔōʔōvea</i>	‘ <i>Urodynamis taitensis</i> ’
Pn:	Tongarevan	<i>koekoeā</i>	‘ <i>Urodynamis taitensis</i> ’
Pn:	Māori	<i>koekoeā</i>	‘ <i>Urodynamis taitensis</i> ’

PMic **(li)kapilei* ‘cuckoo’

Mic:	Kiribati	<i>kapenei</i>	‘ <i>Urodynamis taitensis</i> ’
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Proto Chuukic **likāpi* ‘a bird’

Mic:	Woleaian	<i>rixāpirāi</i>	‘bird sp.’
Mic:	Namoluk	<i>likapilei</i>	‘Long-tailed Koel, <i>Urodynamis taitensis</i> ’
Mic:	Chuukese	<i>nikāp</i>	‘land bird sp. (brown, long tail, afraid of other birds)’

Although Micronesian borrowing would not be expected, the similarity of the following is intriguing:

Pn:	Mangarevan	<i>pakanei</i>	‘name of a bird mentioned by Laval, possibly the cuckoo’ (Hiroa 1938)
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5.11 Owls (Tytonidae, Strigidae)

The Barn Owls (Tytonidae) and Typical Owls (Strigidae) are each represented in Oceania by a single genus. The Barn Owl (*Tyto alba*) is probably the most widespread owl of the Oceanic region. In the homeland it coexists with the endemic New Britain Barn Owl (*Tyto aurantia*). There are also two Hawk Owls of the genus *Ninox*. While the voice of the Barn Owl is described as a screech, Typical Owls (like pigeons) have calls whose acoustic profile suggests the low second formant of [u]-type vowels. The Solomon Islands Hawk Owl (*Ninox jacquinoti*), for example, has a call described as ‘Kuurrroo’ with rolled ‘r’ (Hadden 2004a:155). The prevalence of such vowels in the first three cognate sets places them under a certain degree of uncertainty. Note, however, that reflexes of **lulu* are found mostly in areas where the Barn Owl is the only owl present, and are therefore unlikely to be imitative.

POc **kuru(dr,d)u* ‘owl’

NNG:	Dami	<i>kuru(min)</i>	‘owl’
NNG:	Yabem	<i>kululuʔ(pon)</i>	‘owl’
NNG:	Mengen (Poeng)	<i>ku-kulo</i>	‘owl spp.’
PT:	Gapapaiwa	<i>gudu-gudu</i>	‘owl; Papuan Frogmouth, <i>Podargus papuensis</i> ’
PT:	Kilivila	<i>kuru</i>	‘owl’
MM:	Patpatar	<i>kur-kuru</i>	‘owl’
MM:	Tolai	<i>kur(u)kur</i>	‘small owl sp.’
MM:	Halia	<i>kurou</i>	‘Solomon Islands Hawk-Owl, <i>Ninox jacquinoti</i> ’
MM:	Teop	<i>kuroi</i>	‘ <i>Ninox jacquinoti</i> ’
		<i>(toto)kururu</i>	‘Fearful Owl, <i>Nesasio solomonensis</i> ’

MM:	Tinputz	<i>kuro</i>	‘ <i>Ninox jacquinoti</i> ’
MM:	Banoni	<i>kūru</i>	‘ <i>Ninox jacquinoti</i> ’
MM:	Torau	<i>kuru</i>	‘ <i>Ninox jacquinoti</i> ’
MM:	Babatana	<i>kururu</i>	‘owl’
MM:	Marovo	<i>orodo</i>	‘ <i>Ninox jacquinoti</i> or <i>Nesasio solomonensis</i> ’
MM:	Maringe	<i>na-krudu</i>	‘ <i>Ninox jacquinoti</i> ’
SES:	Tolo	<i>kuru</i>	‘owl’
SES:	Longgu	<i>kuru</i>	‘owl’
SES:	To’aba’ita	<i>(noʔo) kurudu</i>	‘owl (as pet)’

cf. also:

NNG:	Mangap	<i>uloto</i>	‘owl’
MM:	Kia	<i>kikituru</i>	‘owl’

POc **drudru(r;R)* ‘owl’

MM:	Madak	<i>dudu</i>	‘owl’
MM:	Sursurunga	<i>durdur</i>	‘owl taxon, includes Sooty Owl, Grass Owl’
MM:	Nduke	<i>duduru</i>	‘owl (generic)’
MM:	Roviana	<i>duduru</i>	‘owl sp.’
SES:	Bugotu	<i>duru</i>	‘owl’
SES:	Gela	<i>duru</i>	‘an owl’

cf. also:

MM:	Halia	<i>tutul</i>	‘Fearful Owl, <i>Nesasio solomonensis</i> ’
MM:	Tinputz	<i>toruruen</i>	‘owl’

PROc **lulu* ‘Barn Owl, *Tyto alba*’

NCV:	Kiai	<i>lulu</i>	
NCV:	Araki	<i>lulu</i>	
NCV:	Atchin	<i>lul</i>	‘the night hawk’
NCV:	Maskelynes	<i>na-rür</i>	‘owl’
NCV:	Lewo	<i>(kia)lulu</i>	‘owl’
Fij:	Bauan	<i>lulu</i>	
Pn:	Tongan	<i>lulu</i>	
Pn:	E Futunan	<i>lulu</i>	
Pn:	Samoan	<i>lulu</i>	
Pn:	Pileni	<i>lulu</i>	‘owl’
Pn:	Rennellese	<i>gugu</i>	
Pn:	Tikopia	<i>ruru</i>	
Pn:	W Uvean	<i>lulu</i>	
Pn:	Māori	<i>ruru</i>	‘Boobook Owl, <i>Ninox novaeseelandiae</i> ’

A Polynesian borrowing:

Fij:	Rotuman	<i>ruru</i>	‘owl spp.’
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cf. also:

TM:	Buma	<i>e-luro</i>	
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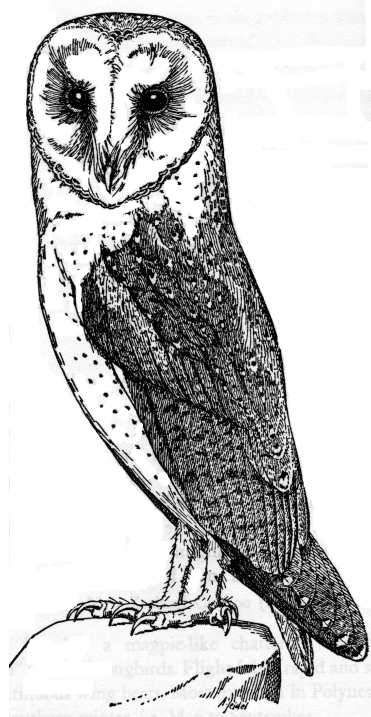


Figure 6.13 *Tyto alba*, Barn Owl

An unusually large number of Polynesian bird names reflect **lulu* but are applied to various seabirds (compare **toloa*, §5.3):

Pn:	Tuvalu	<i>lulu</i>	‘Phoenix Petrel, <i>Pterodroma alba</i> ’
Pn:	Rapanui	<i>ruru</i>	‘Giant Petrel, <i>Macronectes giganteus</i> ’
Pn:	Tahitian	<i>ruro</i>	‘Tahiti Kingfisher, <i>Halcyon venerata</i> ’
Pn:	Manihiki	<i>ruru</i>	‘large sea bird sp. with hooked bill’
Pn:	Māori	<i>ruru-tāiko</i>	‘Black Petrel, <i>Procellaria parkinsoni</i> ’

And borrowed from Polynesian:

Mic:	Kiribati	<i>ruru</i>	‘ <i>Pterodroma alba</i> ’
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There is at present an owl-free area in Eastern Polynesia, which may account for the maritime application of some of these words. However, owls and petrels have in common that they are seldom seen, and mainly known by their calls at night. Spenneman (2004:149) notes that *licem^{ua}ao*, the present Marshallese term for the female of the Short-eared Owl (*Asio flammeus*) was given by an earlier source for a type of petrel. (The name is probably analysable as *li-* ‘feminine prefix’ + ? + *m^{ua}a* ‘cry’ + *o* ‘oh!’.)

POc **pora* ‘owl’

NNG:	Kaulong	(<i>ekin</i>) <i>voh</i>	‘owl’
MM:	Nduke	<i>po-poro</i>	‘nocturnal bird, said to call just before daylight’
NCV:	Mota	(<i>man</i>) <i>wara</i>	‘owl’
NCV:	Rerep	<i>nu-m^ubur</i>	‘owl’
NCV:	Port Sandwich	<i>na-vandr</i>	‘owl’

NCV:	SW Bay	(<i>ni-vin</i>) <i>mbant</i>	‘owl’
NCV:	SE Ambrym	<i>vuei</i>	‘Barn Owl, <i>Tyto alba</i> ’
NCV:	Paamese	<i>voia(asue)</i>	‘ <i>Tyto alba</i> ’

PEOc **wisi* ‘owl’

SES:	Lau	<i>k^{wisi}</i>	‘bird sp.’
SES:	Kwaio	<i>k^{wisi}</i>	‘bird believed to announce events’
NCV:	Mota	<i>wis</i>	‘an owl’
NCV:	Lakon	<i>wis</i>	‘Barn Owl, <i>Tyto alba</i> ’
NCV:	NE Ambae	<i>wisi</i>	
NCV:	Raga	(<i>b^{wat}</i>) <i>v^{wisi}</i>	‘ <i>Tyto alba</i> ’ (expected †- <i>wisi</i>)
NCV:	Big Nambas	<i>nū-vis</i>	‘owl, <i>Tyto alba</i> ’ (expected †- <i>wis</i>)

PSV **sum^{wit}* ‘Barn Owl, *Tyto alba*’

SV:	Ura	<i>ne-mit</i>	
SV:	Sye	<i>no-mit</i>	
SV:	N Tanna	(<i>ka</i>) <i>səm^w</i>	‘owl’
SV:	Kwamera	(<i>kə</i>) <i>sum^{wi}</i>	
SV:	Lenakel	<i>him^{wir}</i>	

PNCal **m^{wen}* ‘Barn Owl, *Tyto alba*’

NCal:	Nêlêmwā	<i>m^{wen}</i>
NCal:	Caaàc	<i>m^{wen}</i>
NCal:	Fwâi	<i>m^{wen}</i>
NCal:	Cèmuĥî	<i>m^{wĭn}</i>
NCal:	Xârâcùù	<i>m^{wã}(dööya)</i>
NCal:	Drubea	<i>m^{wé}</i>
NCal:	Iaai	<i>mun</i>
NCal:	Dehu	<i>men</i>
NCal:	Nengone	<i>meni</i>

5.12 Swifts and swallows (Apodidae, Hemiprocnidae, Hirundinidae)

These three groups are closely allied in general appearance and habits and rarely distinguished terminologically. The swiftlets are familiar birds of garden areas throughout much of Oceania. The most common species noted are the White-rumped Swiftlet (*Aerodramus spodiopygius*), Uniform Swiftlet (*A. vanikorensis*) and White-bellied Swiftlet (*Collocalia esculenta*). These are not in general lexically distinguished. The few terms recorded for the Pacific Swallow (*Hirundo tahitica*) and the even fewer for the Whiskered Tree-swift (*Hemiproctne mystacea*) are often lexically associated with those for the Swiftlets, and where they are not, they do not support any independently reconstructible term. These birds are also terminologically linked with small insectivorous bats: SE Ambrym (NCV) *avæp* ‘any small bat; swiftlet’; E Futunan *pekapeka* ‘White-rumped Swiftlet’, *pekapeka saʔi* ‘small bat sp.’ (see ch.5, §2.9).

POc *kabakabal ‘swiftlet, *Aerodramus* or *Collocalia* spp.’ (cf. *kaba etc. ‘wing, flap’)

NGG:	North Watut	<i>ko^mbaŋko^mb</i>	‘bird sp.’
MM:	Tolai	<i>kəbəkəbəl</i>	‘ <i>Collocalia esculenta</i> ’
		<i>kubəkubəl</i>	‘swallow or swift sp.’ (expected † <i>kabəkabal</i>)
MM:	Roviana	<i>kapakapa(gema)</i>	‘a small greenish bird, frequents <i>qema</i> [<i>Nephelium</i>] trees’
MM:	Maringe	<i>gāyable</i>	‘ <i>Collocalia</i> spp.’
SES:	Malango	<i>habahaba (viso)</i>	‘Whiskered Tree-swift, <i>Hemiprocne mystacea</i> ’
SES:	Kwaio	<i>kaba(ʔi)</i>	‘ <i>Hemiprocne mystacea</i> ’
SES:	Arosi	<i>ʔapaʔapa</i>	‘swallow’
		<i>kapakapa</i>	‘swallow (swift)’
SES:	Bauro	<i>yapayapa</i>	‘ <i>Collocalia</i> spp.’
		<i>yapayapa (usu)</i>	‘ <i>Hemiprocne mystacea</i> ’
NCV:	Mota	<i>yapayapa</i>	‘ <i>Collocalia esculenta</i> ’
NCV:	Mwotlap	<i>na-baybay(lo)</i>	‘White-rumped Swiftlet, <i>Aerodramus spodiopygius</i> ’ (metathesis)
NCV:	Raga	<i>yabayaba</i>	‘ <i>Collocalia</i> spp.’
NCV:	Port Sandwich	<i>(xu)^mbaxa^mb</i>	‘ <i>Hirundo tahitica</i> ’ (metathesis)
NCV:	SE Ambrym	<i>avæp</i>	‘swiftlets and bats, esp. <i>Aerodramus vanikorensis</i> ’
NCV:	Nisvai	<i>(navi)xabxabel</i>	‘swiftlet’ (John Lynch, pers. comm.)
NCV:	S Efate	<i>kapkāp</i>	‘swiftlet’
Fij:	Bauan	<i>kākaba(ðē)</i>	‘ <i>Aerodramus spodiopygius</i> ’

A probable borrowing from a North Vanuatu language, with metathesis (cf. Mwotlap):

Pn:	Tikopia	<i>paka(lili)</i>	‘Uniform Swiftlet, <i>Aerodramus vanikorensis</i> ’
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cf. also:

PT:	Iduna	<i>(manu) yayabama</i>	‘White-bellied Swiftlet, <i>Collocalia esculenta</i> ’
SV:	Ura	<i>n-ibem</i>	‘white-rumped swiftlet’
SV:	Sye	<i>ni-mpem</i>	‘ <i>Aerodramus spodiopygius</i> ’

PCP *bekabeka ‘swiftlet’ (cf. POc *b^weka ‘fruit bat, flying fox’, ch. 5, §2.9)

Fij:	Lau	<i>bekabeka(niðañi)</i>	‘White-rumped Swiftlet, <i>Aerodramus spodiopygius</i> ’
Pn:	Tongan	<i>pekepeka(tea)</i>	‘ <i>Aerodramus spodiopygius</i> ’
		<i>pekepeka</i>	‘Pacific Swallow, <i>Hirundo tahitica</i> ’
Pn:	Niuean	<i>pekapeka</i>	‘ <i>Aerodramus spodiopygius</i> ’
Pn:	E Futunan	<i>pekapeka</i>	‘ <i>Aerodramus spodiopygius</i> ’
Pn:	Pileni	<i>pekapeka</i>	‘swiftlet’
Pn:	Rennellese	<i>pekapeka</i>	‘White-bellied Swiftlet, <i>Collocalia esculenta</i> ’
Pn:	Emae	<i>pekapeka</i>	‘ <i>Collocalia</i> spp.’
Pn:	Marquesan	<i>(kō)pekapeka</i>	‘Marquesan Swiftlet, <i>Aerodramus ocista</i> ’
Pn:	Tahitian	<i>(ʔō)peʔa</i>	‘ <i>Hirundo tahitica</i> or Tahitian Swiftlet, <i>Aerodramus leucophaeus</i> ’
Pn:	Rarotongan	<i>(kō)peka</i>	‘Cook Islands Swiftlet, <i>Aerodramus sawtelli</i> ’



Figure 6.14 *Hemiprocne mystacea*, Whiskered Tree-swift

Proto Malaita-Makira **sisiri* 'swiftlet'

SES:	To'aba'ita	<i>sīsiri</i>	' <i>Collocalia</i> sp.'
SES:	Lau	<i>sisiru</i>	'swallow'
SES:	Kwaio	<i>sīsili</i>	' <i>Collocalia</i> sp.'
SES:	'Are'are	<i>sisiri(hapa)</i>	'a small swallow'
SES:	Sa'a	<i>sisiri (hapa)</i>	'swallow'
SES:	Uki ni Masi	<i>sisiri(hapa)</i>	' <i>Collocalia</i> sp.'
SES:	Arosi	<i>sisiri(hioha)</i>	'swallow, blue with red head, comes in houses'
SES:	Bauro	<i>sisiri (oha)</i>	'Pacific Swallow, <i>Hirundo tahitica</i> '

PNCal **bivilo(k)* 'swiftlet'

NCal:	Nyelâyü	<i>pivilo</i>	'White-rumped Swiftlet, <i>Aerodramus spodiopygius</i> '
NCal:	Nêlêmwa	<i>pivilo</i>	'White-bellied Swiftlet, <i>Collocalia esculenta</i> '
NCal:	Caaâc	<i>biviloc</i>	'swallow, white-rumped swiftlet'
NCal:	Jawe	<i>bivilōc</i>	' <i>Aerodramus spodiopygius</i> '
NCal:	Cèmuhi	<i>hĩlò</i>	' <i>Aerodramus spodiopygius</i> '

PROc **ka(r,l)aka(r,l)a* 'swiftlet'

NCV:	Mwotlap	<i>ne-keykey(beye)</i>	'Uniform Swiftlet, <i>Aerodramus vanikorensis</i> '
NCV:	Matantas	<i>na-textitkarakara</i>	'White-bellied Swiftlet, <i>Collocalia esculenta</i> '
		<i>na-karakara(poi)</i>	' <i>Aerodramus vanikorensis</i> '
		<i>na-karakara(ruhumele)</i>	'Pacific Swallow, <i>Hirundo tahitica</i> '
NCV:	Sara	<i>harahara</i>	' <i>Aerodramus vanikorensis</i> ' (Flux 1993)
NCV:	Kiai	<i>karakara</i>	

NCV:	Atchin	<i>kirkiri(el)</i>	‘small bird resembling swallow, inhabiting the mainland’
Fij:	Lomaiviti	<i>kalakala(mādrau)</i>	‘White-rumped Swiftlet, <i>Aerodramus spodiopygius</i> ’
Pn:	Takuu	<i>karakara(tavori)</i>	‘ <i>Collocalia esculenta</i> ’
Pn:	Rennellese	<i>kaga(muʔa)</i>	‘ <i>Aerodramus</i> spp.’

5.13 Kingfishers (Alcedinidae)

Ten species of Kingfisher are recorded for the homeland, half of them in the genus *Halcyon*, which extends widely through Oceania. Particularly widespread are the White-collared Kingfisher (*H. chloris*), the Sacred Kingfisher (*H. sancta*) and the White-headed Kingfisher (*H. saurophaga*). Other kingfishers of the homeland include the very large White-tailed Kingfisher (*Tanysiptera sylvia*), and the small birds of genera *Ceyx* and *Alcedo*. A number of good cognate sets exist, but assignment to species is very problematic. The relatively few terms for non-*Halcyon* species do not form any useful cognate sets. Blust (2002:113) compares POc **(s,j)iko* with PMP **cikep* ‘catch with hands’.

POc **(s,j)iko* ‘kingfisher’

NNG:	Manam	<i>siko</i>	‘bird sp. (short body, red beak and head, black wings, long white tail)’
NNG:	Lukep (Pono)	<i>siki</i>	‘kingfisher’
PT:	Tawala	<i>diko</i>	‘kingfisher’
MM:	Banoni	<i>(si)sikā</i>	‘Dwarf Kingfisher, <i>Ceyx lepidus</i> ’
MM:	Marovo	<i>cige</i>	‘River Kingfisher, <i>Alcedo atthis</i> ’
MM:	Nduke	<i>hige</i>	‘River Kingfisher. (<i>Alcedo atthis</i>) and possibly other spp.’
MM:	Roviana	<i>sige</i>	‘kingfisher sp. (small, swift-flying)’
MM:	Kia	<i>suke(neo)</i>	‘White-collared Kingfisher, <i>Halcyon chloris</i> ’
SES:	Bauro	<i>(a)sigo</i>	‘ <i>Halcyon</i> spp.’
NCV:	Mota	<i>siyo</i>	‘kingfisher’
NCV:	Dorig	<i>siy</i>	‘ <i>Halcyon</i> spp.’
NCV:	Lakon	<i>tʃi:</i>	‘ <i>Halcyon</i> spp.’
NCV:	Raga	<i>(bʷat)hiyo</i>	‘ <i>Halcyon chloris</i> ’
NCV:	Matantas	<i>na-siho</i>	‘ <i>Halcyon chloris</i> ’
NCV:	Kiai	<i>siko</i>	‘kingfisher’
NCV:	Avava	<i>a-sik</i>	‘ <i>Halcyon chloris</i> ’
NCV:	Port Sandwich	<i>na-six</i>	‘ <i>Halcyon chloris</i> ’
NCV:	SE Ambrym	<i>si</i>	‘ <i>Halcyon chloris</i> ’
NCV:	Paamese	<i>a-sio</i>	‘ <i>Halcyon chloris</i> ’
NCV:	S Efate	<i>sik</i>	‘kingfisher’
SV:	Ura	<i>uye</i>	‘kingfisher’
SV:	Sye	<i>uki</i>	‘ <i>Halcyon chloris</i> ’
SV:	Anejoñ	<i>ne-θey</i>	‘ <i>Halcyon</i> sp.’
NCal:	Nêlêmwa	<i>ʃixe(men)</i>	‘Sacred Kingfisher, <i>Halcyon sancta</i> ’

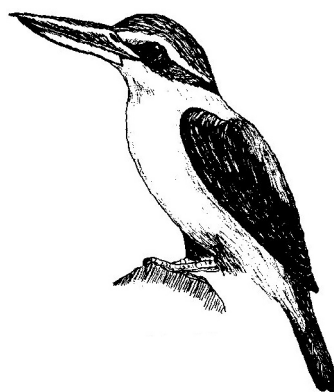


Figure 6.15 *Halcyon chloris*, White-collared Kingfisher

NCal:	Paicî	<i>jöö(cā)</i>	‘ <i>Halcyon sancta</i> ’
Mic:	Sonsorolese	<i>(taga)dik</i>	‘kingfisher’
Pn:	Tongan	<i>siko(tā)</i>	‘ <i>Halcyon chloris</i> ’
Pn:	E Futunan	<i>tiko(tala)</i>	‘ <i>Halcyon chloris</i> ’
Pn:	Nukuria	<i>te-hiko</i>	‘White-headed Kingfisher, <i>Halcyon saurophaga</i> ’
Pn:	Takuu	<i>tiko(tala)</i>	‘mythical bird sp.’
Pn:	Tikopia	<i>siko(tara)</i>	‘ <i>Halcyon chloris</i> ’
Pn:	Imere	<i>siko(tara)</i>	‘ <i>Halcyon chloris</i> ’
Pn:	Tahitian	<i>ʔō(tātare)</i>	‘Borabora Kingfisher, <i>Halcyon tuta</i>) and Tahitian Kingfisher, <i>H. venerata</i>); also Long-billed Reed Warbler, <i>Acrocephalus caffer</i> ’
Pn:	Rarotongan	<i>kō(tare)</i>	‘ <i>Halcyon tuta</i> ’
Pn:	Māori	<i>ko(tare)</i>	‘ <i>Halcyon sancta</i> ’

A probable borrowing from a Southeast Solomonian language:

Pn:	Rennellese	<i>liyo</i>	‘ <i>Halcyon chloris</i> ’
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This word appears to have been reshaped in Polynesian to PPn **tiko-tara*, a compound analysable as ‘defecate’ + ‘end of house’. Some outliers have returned to a historically earlier form through non-Pn influence. The Bauan Fijian word for kingfisher has a general resemblance to the Polynesian **tikotara* forms, but cannot be formally reconciled with them; more exact agreement is found in the first part of the word *sikorere*, though with slightly deviant reference:

Fij:	Bauan	<i>sēðala</i>	‘ <i>Halcyon</i> spp.’
		<i>sikorere</i>	‘White-breasted Wood Swallow, <i>Artamus leucorhynchus</i> ’

The following two sets are likely to be at least influenced by imitation of the voice of *Halcyon* kingfishers, represented as *ki-ki-ki-ki-ki-i-ee* (Watling 2004:137).

POc **ki(o)kio* ‘kingfisher’ cf. PAn **kiaw* ‘puling sound of a bird’ (Blust 1995)

Adm:	Nauna	<i>kikiw</i>	‘kingfisher’
Adm:	Seimat	<i>kioki</i>	‘kingfisher’
Adm:	Wuvulu	<i>ioio</i>	‘kingfisher’
NNG:	Mangap	<i>kiakia(gāda)</i>	‘kingfisher’ (cf. <i>gadgāda</i> ‘foolish, crazy’)
PT:	Misima	<i>kiokio</i>	‘kingfisher’
PT:	Nimoa	<i>kiokio</i>	‘kingfisher’
PT:	Roro	<i>heoheo</i>	‘kingfisher’
MM:	Tolai	<i>kiəkia(tabu)</i>	‘White-collared Kingfisher, <i>Halcyon chloris</i> ’
MM:	Ramoaaina	<i>giagia(utam)</i>	‘ <i>Halcyon chloris</i> or White-tailed Kingfisher, <i>Tanyptera sylvia</i> ’
MM:	Nehan	<i>kekio</i>	‘White-headed Kingfisher, <i>Halcyon saurophaga</i> ’
MM:	Halia	<i>kikio</i>	‘ <i>Halcyon saurophaga</i> ’
		<i>kiukiu</i>	‘kingfisher’
MM:	Petats	<i>keukeuo</i>	‘kingfisher’
MM:	Banoni	<i>kiokio</i>	‘ <i>Halcyon saurophaga</i> ’
MM:	Marovo	<i>kikio</i>	‘ <i>Halcyon saurophaga</i> ’
MM:	Nduke	<i>kikio</i>	‘ <i>Halcyon saurophaga</i> , Beach Kingfisher’
MM:	Roviana	<i>kikio</i>	‘the largest of the three kingfishers’ [i.e. <i>Halcyon</i> sp.]
MM:	Simbo	<i>kikio</i>	‘bird sp. found on reef’
MM:	Kia	<i>kiokio</i>	‘Ultramarine Kingfisher, <i>Halcyon leucopygia</i> ’
MM:	Maringe	<i>k^hiok^hio</i>	‘ <i>Halcyon saurophaga</i> ’
		<i>ciocio</i>	‘kingfisher sp. with white belly, blue wings and back’
		<i>k^hiak^hia</i>	‘ <i>Halcyon chloris</i> ’
SES:	Gela	<i>giogio</i>	‘a kingfisher’
SES:	Longgu	<i>kiokio</i>	‘kingfisher’
SES:	Kwaio	<i>kiokio</i>	‘ <i>Halcyon saurophaga</i> ’
SES:	Bauro	<i>kiokio</i>	‘ <i>Halcyon saurophaga</i> ’
Pn:	Sikaiana	<i>kiokio</i>	‘ <i>Halcyon chloris</i> ; also Island Grey-headed Monarch, <i>Monarcha cinerascens</i> ’

POc **kiki* ‘kingfisher’

Adm:	Mussau	<i>sokiki</i>	
MM:	Vitu	<i>kiki</i>	
MM:	Tolai	<i>kik</i>	‘ <i>Halcyon</i> spp.’
MM:	Nakanai	<i>kiki</i>	
SES:	Kwaio	<i>ʔiʔi</i>	‘White-collared Kingfisher, <i>Halcyon chloris</i> ’
NCal:	Xârâcùù	<i>cicøde</i>	‘Sacred Kingfisher, <i>Halcyon sancta</i> ’
NCal:	Drubea	<i>céca</i>	‘ <i>Halcyon sancta</i> ’
NCal:	Iaai	<i>jiji</i>	‘ <i>Halcyon sancta</i> ’
NCal:	Dehu	<i>ciciat</i>	
NCal:	Nengone	<i>wa-zeze</i>	

5.14 Rollers (Coraciidae)

The single species in this family in the Oceanic homeland, the Dollar Bird (*Eurystomus orientalis*) can be associated with two small cognate sets, though there are problems of identification.

PWOc **ule(o)* ‘Dollar Bird, *Eurystomus orientalis*’

PT:	Iduna	<i>ule(kakamota)</i>	
MM:	Nduke	<i>uleo</i>	
MM:	Roviana	<i>uleo</i>	‘bird sp., <i>Graucalus sublineatus</i>) with a rather shrill note’

The obsolete generic in Roviana most probably refers to the Lineated Cuckoo Shrike (*Coracina lineata*). Since the terms below are distributed only around the Western Oceanic/SE Solomonian boundary, it is possible that terms have been borrowed across the boundary. If so, there is no support for a POc reconstruction.

POc (?) **kikiroa*~**kikiora* ‘Dollar Bird, *Eurystomus orientalis*’

MM:	Roviana	<i>kik(i)ora</i>	‘ <i>Eurystomus orientalis</i> ’
MM:	Maringe	<i>k^hikiloa</i>	‘dark coloured bird with yellow markings around eyes and beak, possibly the dollar bird’ (White 1988); Yellow-faced Mynah, <i>Mino dumontii</i> ’ (Webb 1992)
SES:	Malango	<i>kikirau</i>	‘ <i>Eurystomus orientalis</i> ’
SES:	To’aba’ita	<i>kekeora</i>	‘ <i>Eurystomus orientalis</i> ’

There are very similar names for this bird in some Papuan languages of Bougainville, such as Buin *kikitou*, Koromira *mekikiro*, which may be borrowings from Oceanic languages.

5.15 Hornbills (Bucerotidae)

Two good cognate sets are available for the single species, Blyth’s Hornbill (*Aceros plicatus*), which occurs throughout New Guinea and the Solomons.

POc **binam* ‘hornbill’ (ACD)

PT:	Tubetube	<i>binam</i>	
PT:	Dobu	<i>binama</i>	
PT:	Iduna	<i>binama</i>	
PT:	Wedau	<i>binama</i>	
PT:	Balawaia	<i>bina</i>	‘a large-beaked bird’
PT:	Motu	<i>bina</i>	
SES:	Bugotu	<i>bina</i>	‘toucan’
SES:	Gela	<i>bina</i>	‘toucan’
SES:	Malango	<i>bina</i>	
SES:	To’aba’ita	<i>bina</i>	
SES:	Kwaio	<i>bina</i>	
SES:	Arosi	<i>bina (awa)</i>	



Figure 6.16 *Aceros plicatus*, Blyth's Hornbill

The following indicate a considerable broadening of the reference of this term in some SE Solomonic languages:

SES:	'Are'are	<i>pina (ni āno)</i>	'big grey pigeon' (<i>āno</i> 'garden')
SES:	Sa'a	<i>pine (ni ou)</i>	'Nicobar Pigeon, <i>Caloenas nicobarica</i> '
SES:	Arosi	<i>bina</i>	'hawk'
		<i>bina (ni asi)</i>	'booby' (<i>asi</i> 'sea')
		<i>bina (ahuri)</i>	' <i>Caloenas nicobarica</i> '
		<i>bina (ni mou)</i>	' <i>Caloenas nicobarica</i> ' (<i>mou</i> 'garden')
		<i>bina (suʔu)</i>	' <i>Caloenas nicobarica</i> ' (<i>suʔu</i> 'lake, swamp')

The hornbill's voice is described as 'various deep grunts and honking notes' (Coates & Peckover 2001:113). Given the lack of exact agreement among the following names, it is likely that at least some represent repeated imitative coinages.

POc **koŋo(k)* 'hornbill'

NNG:	Amara	<i>a-kŋok</i>	
NNG:	Kilenge	<i>a-kŋok</i>	
NNG:	Sengseng	<i>kaŋ-kaŋ</i>	
NNG:	Mengen (Poeng)	<i>gogo</i>	
MM:	Nehan	<i>ŋoŋo</i>	
MM:	Halia	<i>ŋuŋu</i>	
MM:	Petats	<i>ŋoŋo</i>	
MM:	Kia	<i>koŋo</i>	
MM:	Maringe	<i>na-k^hoŋo</i>	
SES:	Bugotu	<i>koŋo</i>	'toucan'

PWOc **komo* 'hornbill'

NNG:	Kairiru	<i>wom</i>	
MM:	Nakanai	<i>ko-komo</i>	'head of hornbill (as decoration)'
MM:	Tolai	<i>ko-komo</i>	
MM:	Banoni	<i>komo</i>	
MM:	Nduke	<i>ko-gomo</i>	

The very large bill of the hornbill would account for the mis-identification as ‘toucan’ in the Bugotu and Gela sources. The toucan is a tropical American bird also celebrated for its extremely large bill.

6 Passerine birds

Although the Passerines belong to a single order (Passeriformes) among more than 20 within the class Aves, they account for more than half of all bird species. Yet in the present study there are far fewer cognate sets for passerines than for the rest. On the basis of the Kalam and Tobelo studies, there seems no reason to think that the Proto Oceanic speakers did not name the passerines in as much detail as other types of bird. Two factors may have contributed to the relative paucity of passerine cognate sets. First, many species are highly localised, which may have produced a high rate of turnover (abandonment and recreation of terms) as the Oceanic speakers migrated away from their homeland. Second, since these birds are, on average, smaller and less conspicuous (and of less economic importance) than the non-passerines, an accurate identification would require both a researcher with the means and inclination to go where the birds are, and a speaker as thoroughly informed about the avifauna as were the Oceanic ancestors. It is just this type of information that is lacking for most Oceanic languages; passerines are undoubtedly over-represented among the ‘unidentified bird species’ entries in the dictionaries.

6.1 Trillers and cuckoo-shrikes (Campephagidae)

The cuckoo-shrikes (*Coracina* spp.) and trillers (*Lalage* spp.) extend from the homeland into southern Melanesia. Some local cognate sets exist.

PNCal **tiā(k,ŋ)* ‘Melanesian Graybird, *Coracina caledonica*’

NCal:	Nyelâyü	<i>jiāŋ</i>
NCal:	Nêlêmwa	<i>jiāc</i>
NCal:	Caaàc	<i>jiāk</i>
NCal:	Jawe	<i>jiāk</i>
NCal:	Fwâi	<i>jiwāk</i>
NCal:	Pije	<i>jiyaŋ</i>
NCal:	Cèmuhi	<i>jīa</i>
NCal:	Paicî	<i>cīō</i>
NCal:	Tinrin	<i>ṭīo</i>
NCal:	Xârâcùù	<i>cīō</i>
NCal:	Drubea	<i>cíkò</i>

PCP *(*jea*)*jea* ‘Spotted Triller, *Lalage maculosa*’

Fij:	Rotuman	<i>jea</i>
Fij:	Lomaiviti	<i>sea-sea</i>
Fij:	Lau	<i>sea-sea</i>
Fij:	Wayan	<i>sē-sē</i>
Pn:	Niuean	<i>hea-hea</i>



Figure 6.17 *Rhipidura leucophrys*, Willie Wagtail

At least some of the following are likely to be independent imitations of vocalizations variously represented as *whee-see*, *twill you twill you*, *keweeo*, and *squeei*, produced by birds of this genus (Hadden 2004a: 185-7).

POc **p^wisu* ‘Cuckoo-shrike, *Coracina* sp.’

MM:	Maringe	<i>fisa</i>	‘Common Cicadabird, <i>Coracina tenuirostris</i> ’
SES:	Bauro	<i>hisu</i>	‘ <i>Coracina tenuirostris</i> (f)’
NCV:	Dorig	<i>(wa)vsu-vsar</i>	‘Spotted Triller, <i>Lalage maculosa</i> ’
NCV:	Raga	<i>v^weu</i>	‘Melanesian Greybird, <i>Coracina caledonica</i> ’
Pn:	Tongan	<i>(siki)viu</i>	‘ <i>Lalage maculosa</i> ’

cf. also:

MM:	Teop	<i>kuisau</i>	‘Papuan Cuckoo Shrike, <i>Coracina papuensis</i> ’
MM:	Banoni	<i>kuisa</i>	‘ <i>Coracina papuensis</i> ’
SES:	Malango	<i>koiso</i>	‘ <i>Coracina</i> spp.’

6.2 Thrushes (Turdidae)

The only species for which any significant base of terms exists is the Island Thrush (*Turdus poliocephalus*).

PSOc **was(i,e)* ‘Island Thrush, *Turdus poliocephalus*’ (John Lynch, pers. comm.)

NCV:	Mota	<i>wasia</i>	‘a bird, merula’
NCV:	Lakon	<i>siwsrw</i>	‘Cuckoo-shrike, <i>Coracina</i> sp.’ (metathesis)
NCV:	Raga	<i>esi-esi</i>	
NCV:	Atchin	<i>ni-was</i>	‘sp. of bird that feeds in the creeks’
SV:	Sye	<i>wasep</i>	
NCal:	Nengone	<i>wasase</i>	

6.3 Fantails (Rhipiduridae) and flycatchers (Monarchidae)

The flycatchers (*Myiagra*, *Monarcha*) and fantails (*Rhipidura*) extend widely into the Oceanic region, but evince only a few local cognate sets.

6.3.1 Fantails

The highly distinctive appearance and behaviour of fantails, and their tolerance of human proximity, make them familiar birds, much better represented by widespread cognate sets than the other flycatchers.

POc **takere* ‘Fantail, *Rhipidura* sp.’

NNG:	Bing	<i>teykil-kil(ahang)</i>	‘willie wag tail’
PT:	Wedau	<i>tagiri-girim</i>	‘wagtail’
PT:	Balawaia	<i>sikere(koio)</i>	‘a small grass bird with long tail’
PT:	Hula	<i>tikere</i>	‘willie wagtail’
MM:	Tolai	<i>taɲene</i>	‘Sunbird, <i>Nectarinia</i> sp.’
NCV:	Mota	<i>tayere</i>	‘a bird, flycatcher’
NCV:	Lakon	<i>takēkē</i>	‘Collared Grey Fantail, <i>Rhipidura fuliginosa</i> ’
NCV:	Raga	<i>tayere</i>	‘ <i>Rhipidura fuliginosa</i> ’
NCV:	SE Ambrym	<i>tailēl</i>	‘Spotted Fantail, <i>Rhipidura spilodera</i> ’
NCV:	Paamese	<i>tālēle</i>	‘ <i>Rhipidura spilodera</i> ’
NCV:	Nguna	<i>takere-kere</i>	
NCal:	Nyelāyu	<i>dagĩñ</i>	
NCal:	Nêlēmwa	<i>dagĩñ</i>	‘ <i>Rhipidura spilodera</i> ’
NCal:	Caaàc	<i>dagĩñ</i>	
NCal:	Jawe	<i>dagĩñ</i>	‘ <i>Rhipidura spilodera</i> ’
NCal:	Grand Couli	<i>dari</i>	
Fij:	Rotuman	<i>fæʔere</i>	‘Fiji Shrikebill, <i>Clytorhynchus vitiensis</i> ’

A probable borrowing from some North–Central Vanuatu language:

Pn:	Emae	<i>takerokero</i>
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POc **laki* ‘fantail’

MM:	Nduke	<i>(ŋi)reyi</i>	‘fantail, possibly Cockerell’s Fantail, <i>Rhipidura cockerelli</i> ’
SES:	Lau	<i>lai</i>	‘fantail’
SES:	Kwara’ae	<i>laʔe</i>	‘willy wagtail’
SES:	Kwaio	<i>laʔe</i>	‘Willie Wagtail, <i>Rhipidura leucophrys</i> ’
NCV:	Matantas	<i>liyiliyi</i>	‘Spotted Fantail, <i>Rhipidura spilodera</i> ’
NCal:	Paicî	<i>ñãti, ñêti</i>	‘ <i>Rhipidura</i> spp.’
NCal:	Xârâcùù	<i>ñãdi</i>	‘ <i>Rhipidura</i> spp.’
NCal:	Drubea	<i>ñáti</i>	‘ <i>Rhipidura spilodera</i> ’

Proto NW Solomonian **pitikole* ‘fantail’

MM:	Marovo	<i>pitikole</i>	‘Willie Wagtail, <i>Rhipidura leucophrys</i> ’
MM:	Nduke	<i>pitikole</i>	‘ <i>Rhipidura leucophrys</i> ’

MM:	Roviana	<i>pitikole</i>	‘ <i>Rhipidura</i> sp.’
MM:	Simbo	<i>pitikole</i>	‘bird sp. like a wagtail’
MM:	Maringe	<i>p^hipituale</i>	‘ <i>Rhipidura leucophrys</i> ’

cf. also:

MM:	Halia (Haku)	<i>pipikula</i>	‘Willy Wagtail’
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PNCV **vete-vete* ‘fantail’

NCV:	Raga	<i>v^wet-vete(rerea)</i>	‘Spotted Fantail, <i>Rhipidura spilodera</i> ’
NCV:	Naman	<i>(no-vi)vete-vet</i>	‘fantail’
NCV:	Neve’ei	<i>(na-vi)vete-vet</i>	‘fantail’

PSOc **sora* ‘fantail’ (John Lynch, pers. comm.)

NCV:	Sara	<i>nu-sora</i>	‘Spotted Fantail, <i>Rhipidura spilodera</i> ’ (Flux 1993)
NCV:	Kiai	<i>sar(kele)</i>	‘Collared Grey Fantail, <i>Rhipidura fuliginosa</i> ’
NCV:	Nguna	<i>soro(pito)</i>	‘fantail sp.’
SV:	Kwamera	<i>(ka)səra-sər</i>	‘ <i>Rhipidura fuliginosa</i> ’

The following potential cognate may be a local formation, cf. *tatara* ‘sweep’:

SES:	Arosi	<i>tatara(p^wera)</i>	‘wagtail’
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Proto SE Solomonic **riuriu[kabe]* ‘Willie Wagtail, *Rhipidura leucophrys*’

SES:	Bugotu	<i>riuriuyabi</i>	
SES:	Gela	<i>riuriupege</i>	‘fantail’
SES:	Malango	<i>riuriuhabe</i>	
SES:	Longgu	<i>(ririʔu) kabi</i>	‘fantail’
SES:	’Are’are	<i>riuriu ʔapi</i>	
SES:	Sa’a	<i>hiʔuhiʔu pote</i>	
SES:	Ulawa	<i>hiʔuhiʔu kape</i>	
SES:	Uki ni Masi	<i>kiukiu rape</i>	
SES:	Arosi	<i>rurukape</i>	
SES:	Bauro	<i>riuriugape</i>	

Apparently at least in part a borrowing from some SE Solomonic language:

Pn:	Rennellese	<i>mayiyape</i>	‘Rennell Fantail, <i>Rhipidura rennelliana</i> ’
		<i>maŋiyape</i>	
		<i>mayuyape</i>	

The first part of this compound clearly relates to *riu* ‘turn’, referring to the bird’s characteristic turns with spread tail feathers, both in flight and perching. In two languages the following element is a body part: Sa’a *pote* ‘buttocks’, Gela *pege* ‘forepart of thigh’. But the more widespread second element seems more likely to be related to POc **kapak*, compare Arosi *kape* ‘flutter’.

6.3.2 Flycatchers

PEOc **paRapaRa* ‘flycatcher’

SES:	Uki ni Masi	<i>harahara(ηata)</i>	‘Chestnut-bellied Monarch (<i>Monarcha castaneiventris</i>)’
SES:	Arosi	<i>harahara(ηada)</i>	‘bird sp.’
SES:	Bauro	<i>yayara(sia)</i>	‘ <i>Monarcha castaneiventris</i> ’
NCV:	SE Ambrym	<i>holhol(vetei)</i>	‘ <i>Myiagra caledonica</i> ’
NCV:	Paamese	<i>holiholi(vetā)</i>	‘ <i>Myiagra caledonica</i> ’
NCal:	Paic̈i	<i>(nã)wārã(ãbī)</i>	‘ <i>Myiagra caledonica</i> ’

PEOc **k(o,u)vi* ‘Flycatcher, *Myiagra* sp.’

SES:	Malango	<i>(du)hui</i>	‘Steel-blue Flycatcher, <i>Myiagra ferrocyanea</i> ’
NCV:	Raga	<i>(buru)kuvi</i>	‘ <i>Myiagra ferrocyanea</i> ’
NCal:	Nengone	<i>(wanere)kowε</i>	‘ <i>Myiagra caledonica</i> ’
Mic:	Chuukese	<i>koyi-koyi</i>	‘a bird (pipes at dawn and dusk)’
Mic:	Mokilese	<i>koi-koi</i>	‘bird sp.’
Mic:	Ponapean	<i>koi-koi</i>	‘Micronesian <i>Myiagra</i> Flycatcher, <i>Myiagra oceanica</i> ’
Pn:	Rennellese	<i>yo-yovi(u)</i>	‘Rennell Shrikebill, <i>Clytorhynchus hamlini</i> ’

6.4 Whistlers (Pachycephalidae)

The Golden Whistler, *Pachycephala pectoralis*, is the only widespread species in this family.

POc **sau* ‘Golden Whistler, *Pachycephala pectoralis*’

MM:	Maringe	<i>(k(h)ua)co</i>	
SES:	Malango	<i>(koe)cau</i>	‘ <i>Pachycephala</i> spp.’
SES:	Bauro	<i>tou-tou</i>	
NCV:	Raga	<i>so-so(belak)</i>	
Fij:	Lomaiviti	<i>(dīdībē)sau</i>	

6.5 Whiteeyes (Zosteropidae)

A single species of this family, the White-throated White-eye, *Zosterops meeki*, occurs in the Oceanic homeland, but others of the same genus are very widely found throughout Oceania, with at least one local cognate set.

PNCV **laka* ‘White-eye, *Zosterops* sp.’

NCV:	Vera’a	<i>leyley(e)</i>	
NCV:	Raga	<i>layalaya</i>	
NCV:	Kiai	<i>lala</i>	
NCV:	Atchin	<i>(we)lala</i>	‘small bird sp.’
NCV:	Naman	<i>(nə-vi)layalay</i>	‘Yellow-fronted White-eye, <i>Zosterops flavifrons</i> ’
NCV:	SE Ambrym	<i>(tohu)laia</i>	‘ <i>Zosterops flavifrons</i> ’

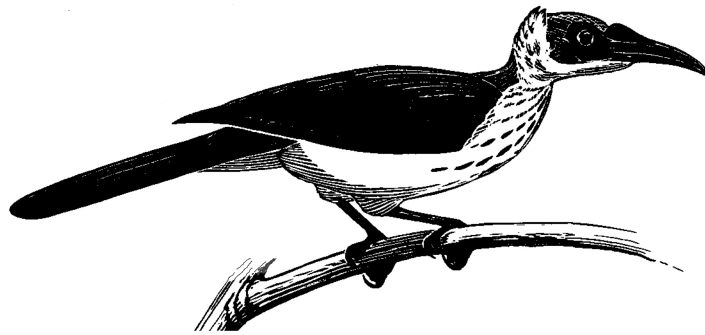


Figure 6.18 *Philemon buceroides*, Helmeted Friarbird

NCV: Lewo	(nin)laia	‘green bird’
NCV: Namakir	likalak	‘small yellow bird (feeds on pawpaw)’
NCV: Nguna	lāka	
cf. also:		
NCV: Mota	(m ^{wa})ley	
NCV: Mwotlap	(na-m ^w)ligleg	
Pn: Emae	lako	(probable borrowing from a North–Central Vanuatu language)
These SV words are possible cognates:		
SV: Ura	(u)lcap	‘ <i>Zosterops flavifrons</i> ’
SV: Sye	(u)lcap, ne-lcap, (we)lcap	‘ <i>Zosterops flavifrons</i> ’

The following two items are the only possible Southeast Solomonic cognate found, and a possible Rennellese borrowing from a SE Solomonic language:

SES: Gela	(laulau)laka	‘very small bird sp.’
Pn: Rennellese	yaya	‘Woodford’s White-eye, <i>Woodfordia superciliosa</i> ’

6.6 Honeyeaters (Meliphagidae)

The honeyeaters of the homeland region include several belonging to the genus *Myzomela*, as well as the New Britain Friarbird (*Philemon cockerelli*) and Gilliard’s Honeyeater (*Melidectes whitemanensis*). Other birds of this family can be found as far as Fiji and western Polynesia.

POc **midi* ‘honeyeater’ (see also PPn **miti*, §6.7, p.349)

MM: Nehan	(re)mit	‘Olive-backed Sunbird, <i>Nectarinia jugularis</i> ’
MM: Banoni	mede-mede	‘Solomons Flowerpecker, <i>Dicaeum aeneum</i> ’
MM: Nduke	(sik)midi	‘small honeyeater-like bird’
SES: Gela	mudu-mudu	‘blackbird sp.’
SES: Lau	(sisi)midi	‘honey eater’
SES: Arosi	mudi-mudi	‘yellow honeysucker’
NCal: Tinrin	(ma)mūrũ	‘bird sp. which sucks flowers’

NCal:	Xârâcùù	(mā)mūrũ	‘Barred Honeyeater, <i>Phylidonyris undulata</i> ’
NCal:	Drubea	(má)mùrũ	‘ <i>Phylidonyris undulata</i> ’
Fij:	Lau	miti-miti, miti(kula)	‘Orange-breasted Honeyeater (<i>Myzomela jugularis</i>)’
Pn:	E Futunan	miti (tokiko)	‘Carunculated Honeyeater, <i>Foulehaio carunculata</i> ’
cf. also:			
Pn:	Pileni	mihi	‘red-fronted bird used for feather money’ (expected †*miti)

The friarbirds (*Philemon* spp.) are a large and distinctive type of honeyeater represented by three species in the homeland region. The following terms present various formal problems, but could be derived from some form such as POc *(sa)kuqa, with metathesis to *(sa)-kuqa.⁹

Adm:	Loniu	cɔʔuka	‘White-naped Friarbird, <i>Philemon albitorques</i> ’
Adm:	Titan	cauka	‘friarbird, probably New Britain Friarbird, <i>Philemon cockerelli</i> ’
NNG:	Musom	kuaŋ	‘leatherhead’ (<i>Philemon</i>)
NNG:	Aribwatsa	uway	‘leatherhead’
PT:	Iduna	takowa	‘Little Friarbird, <i>Philemon citreogularis</i> ’
PT:	Gapapaiwa	sakoa	‘Helmeted Friarbird, <i>Philemon buceroides</i> ’
MM:	Nakanai	kau	‘ <i>Philemon cockerelli</i> ’
MM:	Tolai	kəo, kau	‘ <i>Philemon cockerelli</i> ’

PROc *(b,v)asilo ‘honeyeater’

NCV:	Raga	(busu)bihil	‘Cardinal Honeyeater, <i>Myzomela cardinalis</i> ’
NCV:	SE Ambrym	vasil	‘ <i>Myzomela cardinalis</i> ’
NCV:	Paamese	vasiro	‘ <i>Myzomela cardinalis</i> ’
NCal:	Iaai	bahelo	‘New Caledonian Friarbird, <i>Philemon diemensis</i> ’
Fij:	W Viti Levu	visilou	‘Carunculated Honeyeater, <i>Foulehaio carunculata</i> ’
Pn:	Tongan ¹⁰	fuleheu	‘ <i>Foulehaio carunculata</i> , also Fiji Shrikebill, <i>Clytorhynchus vitiensis</i> ’

This set may be related to an innovative generic for ‘bird’ in a number of Central Vanuatu languages: Apma *b^wihil*, N Ambrym *p^wehel*, Burmbar *mbasir*, etc.

POc *ioli ‘honeyeater’

TM:	Buma	wau iele	‘Cardinal Honeyeater, <i>Myzomela cardinalis</i> ’
NCV:	Kiai	ioli	‘White-bellied Honeyeater, <i>Phylidonyris notabilis</i> ’

⁹ Cf. Nage (CMP) *koka* ‘*Philemon buceroides*’.

¹⁰ Niuatoputapu and Tafahi.

PNCV **b^watu-(i)-manu* ‘Cardinal Honeyeater, *Myzomela cardinalis*’ (lit. ‘head of bird’)

NCV: Mota	<i>p^watman</i>	‘a red-headed honey eater, male; cock bird of <i>tasis</i> ’
NCV: Mwotlap	<i>ne-p^wetmen</i>	
NCV: Raga	<i>b^wat-i-manu</i>	

6.7 Starlings (Sturnidae)

Starlings of the genus *Aplonis*, and the Yellow-faced Mynah, *Mino dumontii*, extend throughout much of Oceania. The first two cognate sets may be related.

POc **pusiRa* ‘Starling, *Aplonis* sp.’

MM: Tolai	<i>vuirə</i>	‘ <i>Aplonis</i> spp.’
NCV: Wusi (Nokovula)	<i>wōhia</i>	‘New Hebrides Starling, <i>Aplonis zelandica</i> ’
Mic: Ponapean	<i>sie</i>	
Fij: Rotuman	<i>husila</i>	‘Striped Starling, <i>Aplonis tabuensis</i> ’ (*-R- > -l-, rare in Rotuman)
Fij: Bauan	<i>vođia</i>	‘Fiji Shrikebill, <i>Clytorhynchus vitiensis</i> ’
Fij: W Viti Levu	<i>vođea</i>	‘ <i>Aplonis tabuensis</i> ’
Fij: Lomaiviti	<i>vođea</i>	‘ <i>Aplonis tabuensis</i> ’
Pn: Tongan	<i>fuiva</i>	‘ <i>Clytorhynchus vitiensis</i> ’
Pn: Samoan	<i>fuia</i>	‘Samoan Starling, <i>Aplonis atrifusca</i> ’
Pn: Takuu	<i>fuia</i>	‘Fead Island Starling, <i>Aplonis feadensis</i> ’
Pn: Luangia	<i>huia</i>	‘ <i>Aplonis feadensis</i> ’
Pn: Māori	<i>huia</i>	‘Huia, <i>Heteralocha acutirostris</i> ’

The Shrikebill has in common with the starlings only a similar size and rather drab colouring. The Huia of New Zealand, a much larger bird, presents even less obvious similarity, and may have been named in imitation of its whistling call.

POc **b^wisu* ‘Shining Starling, *Aplonis metallica*’

Adm: Lou	<i>p^wisi</i>	‘black bird sp.’
Adm: Drehet	<i>p^wisi</i>	‘small black bird sp, with red eyes’
SES: Lau	<i>bi-bisu</i>	
SES: Kwara’ae	<i>bi-bisu</i>	
SES: Kwaio	<i>bī-bisu</i>	‘small black bird sp.’
SES: Uki ni Masi	<i>pi-pisu</i>	
SES: Arosi	<i>pi-pisu</i>	‘bird sp.’
SES: Bauro	<i>(a)pisu</i>	

Probably borrowed from a SES language is

Pn: Rennellese	<i>(ȳā)pilu</i>	‘ <i>Aplonis</i> sp.’
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cf. also:

MM: Teop	<i>buiŋbuiŋ</i>	‘ <i>Aplonis metallica</i> ’
MM: Tinputz	<i>bosiŋ</i>	‘starling (general term)’
NCV: Mota	<i>wotepispis</i>	‘Island Thrush, <i>Turdus poliocephalus</i> ’

The definition of Drehet *p^wisi* is a good description of *Aplonis metallica*. Yapese *gæʔpluw* ‘small black bird sp.’ bears a striking resemblance to the Rennellese word, but given the lack of precise identification and the absence of known borrowing in this direction, this is probably coincidental.

The following appears to be a continuation of POc **midi*, reconstructed above (§6.6) as originally applying to honeyeaters, but extended in Polynesia to the starlings and trillers, on the basis of similarities which remain unclear.

PPn **miti* ‘Striped Starling, *Aplonis tabuensis*’

Pn:	Tongan	<i>mis</i>	
Pn:	Niuean	<i>miti</i>	
Pn:	E Uvean	<i>mis</i>	
Pn:	E Futunan	<i>miti</i> (<i>ʔuli</i>)	(<i>ʔuli</i> ‘black’)
Pn:	Samoa	<i>miti</i>	‘Spotted Triller, <i>Lalage maculosa</i> ’
		<i>miti tai</i>	‘Samoan Triller, <i>Lalage sharpei</i> ’ (<i>tai</i> ‘sea, shore’)
		<i>miti vao</i>	‘ <i>Aplonis tabuensis</i> ’ (<i>vao</i> ‘forest’)
Pn:	Tikopia	<i>miti</i>	

Probable Polynesian borrowing:

Fij:	Lau	<i>miti</i>
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Proto SE Solomonic **ciji(l)o* ‘Yellow-faced Mynah, *Mino dumontii*’

SES:	Malango	<i>cijiro</i>	
SES:	To’aba’ita	<i>si^ʔgio</i>	
SES:	Lau	<i>si^ʔeo</i>	‘starling’
SES:	Kwara’ae	<i>si^ʔgilo</i>	‘bird sp., black except for red around eye’

cf. also:

MM:	Halia (Haku)	<i>cigilio</i>	‘ <i>Mino dumontii</i> or Fead Island Starling, <i>Aplonis feadensis</i> ’
MM:	Banoni	<i>ciyino</i>	
MM:	Torau	<i>sigineu</i>	

6.8 Wood swallows (Artamidae)

The Bismarck Wood Swallow (*Artamus insignis*) has congeners elsewhere in Melanesia, but only two very local cognate sets have been found.

Proto Central Vanuatu **bai* ‘White-breasted Wood Swallow, *Artamus leucorhynchus*’

NCV:	SE Ambrym	<i>væi-væi</i>
NCV:	Nguna	<i>pāe</i>
NCV:	S Efate	<i>pāi</i>

PNCal **k^{hi}ñ* ‘White-breasted Wood Swallow, *Artamus leucorhynchus*’

NCal:	Nêlêmwa	<i>xiñ</i>
NCal:	Caaàc	<i>k^{hi}ñ</i>

NCal:	Fwâi	<i>k^heñ</i>
NCal:	Cèmuhi	<i>ké'n</i>

6.9 Crows (Corvidae)

Again a single species, the Australian Crow (*Corvus orru*) is present in the homeland, with congenetics elsewhere in Melanesia. Both **(kao)kao* and **kaka* are likely to show some influence of widespread representations of crow vocalizations such as English *caw*.

POc **(kao)kao* 'crow, *Corvus* sp.' ¹¹

NNG:	Yabem	<i>aɔʔɔ</i>	'crow, raven'
NNG:	North Watut	<i>ɲaukɲauk</i>	'raven'
NNG:	Mengen (Poeng)	<i>kaokato</i>	
PT:	Dobu	<i>kaokao</i>	
PT:	Are	<i>ogaoga</i>	
PT:	Muyuw	<i>auwau</i>	
PT:	Hula	<i>kao</i>	
PT:	Mekeo	<i>oanjou</i>	'native crow'
MM:	Nakanai	<i>kaokao</i>	
MM:	Patpatar	<i>kok</i>	
MM:	Halia	<i>koko(u)</i>	
MM:	Tinputz	<i>au</i>	
MM:	Banoni	<i>yeyau</i>	'White-billed Crow, <i>Corvus woodfordi</i> '
MM:	Torau	<i>aoao</i>	' <i>Corvus woodfordi</i> '
MM:	Alu	<i>kō</i>	
MM:	Maringe	<i>na-ʔao</i>	' <i>Corvus woodfordi</i> ' (Webb 1992); 'Yellow-faced Mynah, <i>Mino dumontii</i> ' (White 1988)
SES:	Bugotu	<i>aoao</i>	
SES:	Malango	<i>kao</i>	' <i>Corvus woodfordi</i> '

PNGOc **ka(r;R)o(kV)* 'crow'

NNG:	Manam	<i>kalo</i>	'black bird sp. (Blewett); raven (Krähe)'
NNG:	Kairiru	<i>qal</i>	'crow'
NNG:	Bariai	<i>karo</i>	'crow'
NNG:	Kove	<i>karo</i>	'crow'
NNG:	Lusi	<i>karo</i>	'crow'
NNG:	Dami	<i>kalog</i>	'crow'
NNG:	Takia	<i>alal</i>	'crow'
NNG:	Amara	<i>a-krok</i>	'crow'
NNG:	Kilenge	<i>a-kor</i>	'crow'
NNG:	Mangap	<i>aŋkor</i>	'raven, crow'
NNG:	Kaulong	<i>(ekin) k^hoŋ</i>	'crow'

¹¹ Cf. (WMP) Muna *kaoki*.

NNG:	Mouk	<i>ko-krak</i>	‘crow’
NNG:	Lamogai	<i>ka-kroŋ</i>	‘crow’
NNG:	Sengseng	<i>kohoŋ</i>	‘crow’
PT:	Lala	<i>alo</i>	‘crow’
PT:	Motu	<i>galo</i>	‘crow’

PNCal **kaka* ‘New Caledonian Crow, *Corvus moneduloides*’

NCal:	Paicî	<i>këkë</i>
NCal:	Ajië	<i>këxë</i>
NCal:	Tinrin	<i>kaya</i>
NCal:	Xârâcùù	<i>gaka</i>
NCal:	Drubea	<i>k^wák^wá</i>

PNCal **h^weeek* ‘New Caledonian Crow, *Corvus moneduloides*’

NCal:	Nyelâyu	<i>wëëk</i>
NCal:	Nêlêmwa	<i>h^wëëk</i>
NCal:	Caaàc	<i>h^wããk</i>
NCal:	Fwâi	<i>h^wãw^(w)ãk</i>

PPT **b^wayob^wayo* ‘crow’

PT:	Tubetube	<i>boioboio</i>	‘crow’
PT:	Wagawaga	<i>waiwai</i>	‘Australian Crow, <i>Corvus orru</i> ’
PT:	Iduna	<i>b^wayob^wayo</i>	‘ <i>Corvus orru</i> ’
PT:	Tawala	<i>waewae</i>	‘crow’
PT:	Muyuw	<i>buaibuaio</i>	‘crow’

The following reconstruction seems very likely to have denoted some (probably black) passerine species, but the diversity of actual referents makes it hard to be more precise.

PNPn **mako* ‘small bird sp.’

Pn:	Samoa	<i>maʔo-maʔo</i>	‘Black-breasted Honeyeater, <i>Gymnomyza samoensis</i> ’
Pn:	Hawaiian	<i>(ʔō)maʔo</i>	‘Hawaiian Thrush, <i>Myadestes obscurus</i> ’
Pn:	Marquesan	<i>(kō)mako</i>	‘Long-billed Reed Warbler, <i>Acrocephalus caffer</i> ’
		<i>(ʔō)maʔo keʔekeʔe</i>	‘Large Flycatcher, <i>Pomarea whitneyi</i> ’ (<i>keʔekeʔe</i> ‘black’)
Pn:	Mangarevan	<i>(ko)mako</i>	‘Tuamotu Warbler, <i>Acrocephalus atyphus</i> ’
Pn:	Tahitian	<i>(ʔo)ma-maʔo</i>	‘Society Islands Flycatcher, <i>Pomarea nigra</i> ’
Pn:	Māori	<i>mako(mako),</i> <i>(kō)mako,</i> <i>(kōri)mako</i>	‘New Zealand Bellbird, <i>Anthornis melanura</i> ’

7 Sea and shore birds

The sea and shore birds have in common that the species tend to be wide ranging rather than localised, many of them migrants or wanderers. The larger families contain numerous species whose field discrimination can be difficult. Observation of these birds becomes more common as sea orientation becomes more dominant, so that the most precise and detailed taxonomies are found in Micronesian and Polynesian languages.

7.1 Petrels (Procellariidae, Hydrobatidae)

Petrels come to land only to breed, and may be known primarily from the strange noises they make at their burrows at night. Of several species recorded for the homeland, only the Wedge-tailed Shearwater (*Puffinus pacificus*) breeds in the vicinity and is present year round.

There is a certain degree of crossover apparent between the families of petrels, albatrosses and boobies.

PROc *tinebu ‘petrel’

NCal:	Nyelâyu	<i>cīnek</i>	‘night bird’
NCal:	Nêlêmwa	<i>īlep</i>	‘Tahiti Petrel, <i>Pseudobulweria rostrata</i>) and Wedge-tailed Shearwater, <i>Puffinus pacificus</i> ’
NCal:	Caaàc	<i>ñhīnek</i>	‘ <i>Puffinus</i> spp.’
NCal:	Fwâi	<i>ñinep</i>	‘petrel’
NCal:	Voh-Koné	<i>zinep</i>	‘White-winged Petrel, <i>Pterodroma leucoptera</i> ’
NCal:	Cèmuhi	<i>īnip</i>	‘ <i>Pterodroma leucoptera</i> ’
Mic:	Kiribati	<i>tinepu</i>	‘Christmas Island Shearwater, <i>Puffinus nativitatis</i> ’

POc *saba(l) ‘petrel or albatross’

TM:	Buma	<i>saba</i>	‘Wandering Albatross, <i>Diomedea exulans</i> ’
Mic:	Puluwatese	<i>hapal</i>	‘petrel’
Mic:	Namoluk	<i>sapal</i>	‘sea bird, dark coloured, blunt winged, size of noddy, never comes on land’

PROc *koro + modifier ‘petrel’

NCV:	Namakir	<i>koro(lik)</i>	‘black sea bird sp.’
NCV:	N Efate ¹²	<i>koro(liko)</i>	‘Wedge-tailed Shearwater, <i>Puffinus pacificus</i> ’
Mic:	Kiribati	<i>koro(parō)</i>	‘ <i>Puffinus pacificus</i> ’
Pn:	Tahitian	<i>oro(matto)</i>	‘ <i>Pelecanus fiber</i> , Little Grey Booby’ (Forster 1775)

PROc *ta(i)ko(k) ‘petrel’

PSV *n-tako-tako(k) ‘petrel’

SV:	Kwamera	<i>tākura-kāk</i>	‘mutton bird (petrel spp.)’
SV:	Lenakel	<i>tākarka</i>	‘mutton bird’

¹² Tongoa.

PPn *taiko ‘petrel’

Pn:	Tongan	<i>teiko(o)</i>	‘Audubon’s Shearwater, <i>Puffinus lherminieri</i>) and Wedge-tailed Shearwater, <i>P. pacificus</i> ’
Pn:	Samoa	<i>taʔiʔo</i>	‘ <i>Puffinus</i> sp.’
Pn:	Pukapukan	<i>taiko</i>	‘ <i>Puffinus lherminieri</i> ’
Pn:	Rapanui	<i>taiko</i>	‘sea bird sp.’ (Fuentes)
		<i>taiho</i>	‘Trinidad Petrel, <i>Pterodroma arminjoniana</i> ’ (Métraux 1940)
Pn:	Marquesan	<i>teiko</i>	‘bird sp.’
Pn:	Mangarevan	<i>kotai</i>	‘petrel, perhaps <i>Puffinus lherminieri</i> ’ (metathesis)
Pn:	Rarotongan	<i>taiko</i>	‘black petrel’
Pn:	Māori	<i>tāiko</i>	‘Black Petrel, <i>Procellaria parkinsoni</i> ’

The Rotuman form is a loan from Polynesian:

Fij:	Rotuman	<i>toviko</i>	‘shearwater’ (expected † <i>fɔiʔo</i>)
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PPn *lofa ‘petrel or other large sea bird’ (cf. PPn *lofa ‘extended, spread out (as a bird’s wings)’)

Pn:	Tongan	<i>lofa</i>	‘Frigate Bird, <i>Fregata</i> spp.’
Pn:	E Uvean	<i>lofa</i>	‘bird sp.’
Pn:	Pukapukan	<i>noa</i>	‘Brown Booby, <i>Sula leucogaster</i> ’
Pn:	Nukuoro	<i>loha</i>	‘bird sp. (never seen live)’
Pn:	Tikopia	<i>rofa</i>	‘Great Frigate Bird, <i>Fregata minor</i> ’
Pn:	Anutan	<i>ropa</i>	‘bird sp.’
Pn:	Marquesan	<i>roha, noha</i>	‘petrel or shearwater’
Pn:	Tahitian	<i>noha</i>	‘Tahiti Petrel, <i>Pseudobulweria rostrata</i> ’
Pn:	Tuamotuan	<i>noha</i>	‘bird sp.’

7.2 Tropic-birds (Phaethontidae)

The two species of tropic-bird (*Phaethon*) are rare in Papua New Guinea waters but more frequently encountered in Remote Oceania. The Red-tailed Tropic Bird (*P. rubricauda*) and the White-tailed Tropic Bird (*P. lepturus*) differ, as their names suggest, in the colour of the two extremely elongated tail feathers by which this type of bird is readily recognised. They are generally covered by a single lexical item, though there may be a conventional specifier for one or the other, as in Tongan *tavake toto* ‘*P. rubricauda*’ (*toto* ‘blood’).

PMic *tiku, tuki ‘tropic-bird’ (Bender et al. 2003)

Mic:	Sonsorolese	<i>sāk</i>	‘the phaeton’
Mic:	Woleaian	<i>sūx</i>	‘white tropic bird’
Mic:	Puluwatese	<i>wīk</i>	
Mic:	Carolinian	<i>sēx</i>	‘white shore bird with a long tail’
Mic:	Namuluk	<i>ūk</i>	‘White-tailed Tropic-bird, <i>Phaethon lepturus</i> ’
Mic:	Chuukese	<i>wīk</i>	‘ <i>Phaethon lepturus</i> ’
Mic:	Ponapean	<i>sīk</i>	‘white sea bird sp.’

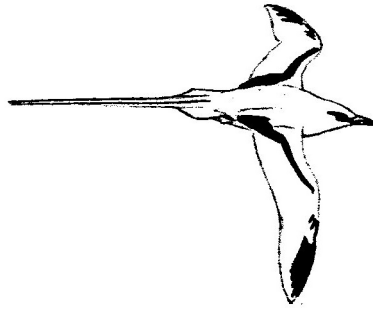


Figure 6.19 *Phaethon lepturus*, White-tailed Tropic Bird

Mic: Mokilese *cik*

Mic: Kosraean *sik* 'bird sp.'

Mic: Marshallese (*l^wok^{wā}*)*cək* 'Red-tailed Tropic-bird, *Phaethon rubricauda*'

Probable borrowing from a Micronesian language:

Yap: Yapese *yūg* 'type of white dove-like bird with a long tail'

PPn **tawake* 'White-tailed Tropic-bird, *Phaethon lepturus*'

Pn: Tongan *tavake*

Pn: E Futunan *tavake*

Pn: Samoan *tavaʔe*

Pn: Tuvalu *tavake*

Pn: Nukuoro *tavake*

Pn: Sikaiana *tavake* 'tropic bird'

Pn: Rennellese *tavake* 'Pacific Golden Plover, *Pluvialis fulva*'

Pn: Tikopia *tavake*

Pn: Emae *manu tavake* 'tropic bird'

Pn: Pukapukan *tavake* 'tropic bird'

Pn: Hawaiian *koaʔe* 'tropic bird'

Pn: Marquesan *toake*

Pn: Tahitian *tavaʔe* 'tropic bird'

Pn: Rarotongan *tavake* 'Red-tailed Tropic-bird, *Phaethon rubricauda*'

Pn: Māori *tawake* 'bird sp. mentioned in songs'

Probable Polynesian borrowings:

TM: Buma *tavake* 'tropic bird'

SV: Anejoñ *n-tauoy* '*Phaethon* spp.'

Mic: Kiribati *tāke* '*Phaethon rubricauda*'

Fij: Rotuman *tævæke* '*Phaethon lepturus*' (expected †*fævæʔe*)

Probable Fijian cognate or borrowing:

Fij: Bauan *tawake* 'banner'

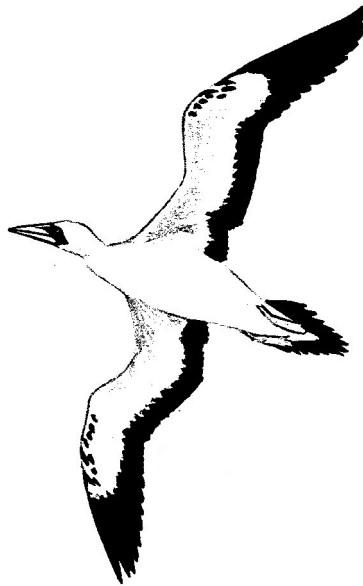


Figure 6.20 *Sula dactylatra*, Blue-faced Booby

7.3 Boobies (Sulidae)

Of the three Boobies (genus *Sula*) found in Oceania, the Brown Booby (*S. leucogaster*) is present year round in New Guinea waters. The Red-footed Booby (*S. sula*), however, is also widely reported, while the Blue-faced Booby (*S. dactylatra*) appears to be the least common. Only in Polynesia and Micronesia are the three species lexically distinguished.

PROc **pue* ‘Booby, *Sula* sp.’

NCal:	Nêlêmwa	(h ^w are)wue	‘Brown Booby, <i>Sula leucogaster</i> ’
NCal:	Caaàc	ūa	
NCal:	Fwâi	(t ^h ef ^w ana)we	
NCal:	Iaai	(sībo)üe	‘ <i>Sula leucogaster</i> ’
Mic:	Kiribati	(ki)pui	‘ <i>Sula leucogaster</i> ’

PPn **fua(kō)* ‘Booby, *Sula* sp.’

Pn:	Samoa	fua(ʔō)	
Pn:	Tokelauan	fua(kō)	‘ <i>Sula leucogaster</i> ’
Pn:	Tahitian	ua(ʔao)	‘Red-footed Booby, <i>Sula sula</i> ’
		aʔo	‘ <i>Sula leucogaster</i> ’

The following terms for petrels appear to be cognate:

Pn:	Tongan ¹³	fuakō	‘Wedge-tailed Shearwater, <i>Puffinus pacificus</i> ’
Pn:	Hawaiian	uaʔu	‘Hawaiian Petrel, <i>Pterodroma phaeopygia</i> ’
		ʔaʔo	‘Manx Shearwater, <i>Puffinus puffinus</i> ’

¹³ Niuatoputapu.

PNPn **(maua)kena* ‘booby, *Sula* sp.’

Pn:	Tuvalu	<i>kena</i>	‘Blue-faced Booby, <i>Sula dactylatra</i> ’
Pn:	Pukapukan	<i>kena</i>	‘booby (?)’
Pn:	K’marangi	<i>moua(kai)</i>	‘Brown Booby, <i>Sula leucogaster</i> ’
Pn:	Takuu	<i>mauakena</i>	‘Red-footed Booby, <i>Sula sula</i> ’
Pn:	Sikaiana	<i>mouakena</i>	‘ <i>Sula leucogaster</i> ’
Pn:	Rennellese	<i>mauakena</i>	‘ <i>Sula sula</i> ’
Pn:	Tikopia	<i>mauakena</i>	‘ <i>Sula dactylatra</i> ’
Pn:	Rapanui	<i>kena</i>	‘ <i>Sula dactylatra</i> ’
Pn:	Marquesan	<i>kena</i>	‘ <i>Sula leucogaster</i> ’
Pn:	Mangarevan	<i>kena</i>	‘ <i>Sula sula</i> ’
Pn:	Manihiki	<i>kena</i>	‘ <i>Sula leucogaster</i> ’
Pn:	Tongarevan	<i>kena</i>	‘ <i>Sula sula</i> ’

A probable Polynesian borrowing:

Mic:	Kiribati	<i>mouakena</i>	‘ <i>Sula dactylatra</i> ’
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The following also appears to be basically a term for a booby sp., though there is some spread to other sea birds. (The Māori word refers to a gannet, the temperate-zone counterpart of the booby, very similar in appearance and habits.)

PNPn **takupu* ‘Red-footed Booby, *Sula sula*’

Pn:	Tuvalu	<i>tapuku</i>	
		<i>takupu</i>	‘Dusky Shearwater, <i>Puffinus lherminieri</i> ’
Pn:	Tokelauan	<i>takupu</i>	‘ <i>Sula sula</i> (adult)’
Pn:	Pukapukan	<i>takupu</i>	‘ <i>Sula sula</i> (dark morph)’
Pn:	Hawaiian	<i>kaʔupu</i>	‘bird sp., perhaps albatross’
Pn:	Marquesan	<i>(kō)putu</i>	‘Trindade Petrel, <i>Pterodroma arminjoniana</i> ’
Pn:	Tuamotuan	<i>takupu</i>	‘gannet’
Pn:	Tongarevan	<i>tapuku</i>	
Pn:	Māori	<i>tākapu, tākupu</i>	‘Australian Gannet, <i>Morus serrator</i> ’

PNPn **kanapu* ‘Brown Booby, *Sula leucogaster*’

Pn:	Tuvalu	<i>kanapu</i>	
Pn:	Nukuria	<i>kanapu</i>	‘Red-footed Booby, <i>Sula sula</i> ’
Pn:	Takuu	<i>kanapu</i>	‘ <i>Sula sula</i> ’
Pn:	Luangiua	<i>ʔaŋapu, ʔaŋapaʔu</i>	‘black and white seagull with red legs’
		<i>aŋapu</i>	‘ <i>Sula sula</i> ’
Pn:	Sikaiana	<i>kanapu</i>	‘bird sp.’
Pn:	Rennellese	<i>kanapu</i>	
Pn:	Tongarevan	<i>kāpu</i>	

A Polynesian borrowing:

Fij:	Rotuman	<i>kanɔpu</i>	(expected † <i>anɔʔu</i>)
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The following three forms suggest POc **kalau* ‘booby’, but may be scattered cognates of the previous set. The Nukuoro word is probably borrowed from Micronesia.

NNG:	Mangap	<i>kalau</i>	‘bird sp.’
Mic:	Marshallese	<i>kal^wo</i>	‘ <i>Sula leucogaster</i> ’
Pn:	Nukuoro	<i>kālau</i>	‘brown booby’

This term is restricted to the central and northern Polynesian Outliers:

PNPn **katoko* ‘booby’

Pn:	Takuu	<i>kātoko</i>	‘Blue-faced Booby, <i>Sula dactylatra</i> ’
Pn:	Nukumanu	<i>(ha)katoko</i>	‘Brown Booby, <i>Sula leucogaster</i> ’
Pn:	Luangiua	<i>ako?o</i>	‘black bird sp. like frigate bird’
		<i>ako?a</i>	‘ <i>Sula leucogaster</i> ’
Pn:	Sikaiana	<i>katoko</i>	‘Red-footed Booby, <i>Sula sula</i> ’
		<i>atoko</i>	‘ <i>Sula sula</i> ’
Pn:	Rennellese	<i>katoko</i>	‘young stage of <i>kanapu</i> , <i>Sula leucogaster</i> ’
Pn:	Tikopia	<i>katoko</i>	‘ <i>Sula leucogaster</i> ’

PROc **kemoa* ‘booby’ (cf. perhaps PWOC **kam^waga* ‘eagle, hawk’; §5.4.2)

Mic:	Woleaian	<i>xemoa</i>	‘booby bird’
Mic:	Puluwatese	<i>yɔmɔ</i>	‘booby bird’
Mic:	Chuukese	<i>ɔmɔ</i>	‘booby bird’
Pn:	Pukapukan	<i>ākama</i>	‘Red-footed Booby, <i>Sula sula</i> (white morph)’

7.4 Frigate birds (Fregatidae)

Two species of frigate bird are common in New Guinea waters, the Great Frigate Bird (*Fregata minor*) and the Lesser Frigate Bird (*F. ariel*). (The identifications of other species for Puluwat and Roviana below are likely to be erroneous.) Two clear POc reconstructions can be justified, though there seems to be no consistent lexical differentiation between the two species in the sources for contemporary languages.

POc *(*dr;d*)*aula* ‘frigate bird’

Adm:	Mussau	<i>raura</i>	
NNG:	Bariai	<i>raila</i>	
NNG:	Gitua	<i>daula</i>	‘seabird sp.’
NNG:	Gedaged	<i>daur</i>	
NNG:	Aria	<i>daila</i>	‘bird sp.’
PT:	Muyuw	<i>dauta</i>	
PT:	Budibud	<i>dauka</i>	
MM:	Tigak	<i>raula</i>	
MM:	Label	<i>daulai</i>	
MM:	Tolai	<i>daulə</i>	‘Lesser Frigate Bird, <i>Fregata ariel</i> ’
MM:	Nehan	<i>daul</i>	‘ <i>Fregata ariel</i> ’
SES:	Gela	<i>daula</i>	
SES:	Tolo	<i>daula</i>	
SES:	To’aba’ita	<i>kaule</i>	



Figure 6.21 *Fregata ariel*, Lesser Frigate Bird

SES:	Lau	<i>gaula</i>
SES:	Kwaio	<i>gaula</i>
SES:	'Are'are	<i>kaura</i>
SES:	Arosi	<i>gaura</i>

A borrowing from a SE Solomonian language:

Pn:	Pileni	<i>kaula, koula</i>
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POc **katapa* 'frigate bird'

Adm:	Loniu	<i>katah</i>	'large black seabird sp., white markings, dives to feed'
Adm:	Lou	<i>karap</i>	
NCal:	Nêlêmwa	<i>cāve</i>	'Lesser Frigate Bird, <i>Fregata ariel</i> '
NCal:	Iaai	<i>ataü</i>	' <i>Fregata ariel</i> '
NCal:	Dehu	<i>wete</i>	
NCal:	Nengone	<i>waxej</i>	
Mic:	Sonsorolese	<i>xadāfe</i>	
Mic:	Puluwatese	<i>yahaf</i>	'Magnificent Frigate Bird, <i>Fregata magnificens</i> '
Mic:	Carolinian (Tanapag)	<i>ahaf</i>	
Mic:	Namoluk	<i>asaf</i>	'Great Frigate Bird, <i>Fregata minor</i> '
Mic:	Ponapean	<i>kasap</i>	
Mic:	Mokilese	<i>kacap</i>	
Mic:	Kiribati	<i>eitei</i>	
Mic:	Nauruan	<i>itti</i>	
Fij:	Rotuman	<i>ʔafaha</i>	
Fij:	Bauan	<i>kasaga</i>	(expected † <i>katava</i>)
Pn:	E Futunan	<i>katafa</i>	' <i>Fregata ariel</i> '
Pn:	Tongan	<i>kātafa</i>	'albatross'

Pn:	Niuean	<i>kotā</i>	
Pn:	Samoan	<i>ʔātafa</i>	
Pn:	Tokelauan	<i>katafa</i>	‘ <i>Fregata minor</i> ’
Pn:	Pukapukan	<i>kotawa</i>	
Pn:	Nukuoro	<i>kataha</i>	‘ <i>Fregata minor</i> ’
Pn:	Takuu	<i>katafa</i>	
Pn:	Sikaiana	<i>kataha</i>	
Pn:	Rennellese	<i>kataha</i>	‘ <i>Fregata ariel</i> ’
Pn:	W Uvean	<i>katafa</i>	‘ <i>Fregata</i> sp.’
Pn:	Tahitian	<i>ʔōtaha</i>	
Pn:	Tongarevan	<i>kōtaha</i>	
Pn:	Rarotongan	<i>kōtaʔa</i>	

Proto NW Solomonic **belama* ‘frigate bird’

MM:	Marovo	<i>belama</i>	
MM:	Nduke	<i>belama</i>	
MM:	Roviana	<i>belama</i>	‘Ascension Frigate Bird, <i>Fregata aquila</i> ’
MM:	Simbo	<i>belamə</i>	‘Lesser Frigate Bird, <i>Fregata ariel</i> ’
MM:	Kia	<i>belama</i>	
SES:	Bugotu	<i>belama</i>	
SES:	Gela	<i>belama</i>	

(The glosses for Puluwat *yahaf* and Roviana *belama* are probably errors at the species level, as these frigate birds are not known in the Oceanic region.)

PNCal **kaidaa(n)* ‘frigate bird’

NCal:	Caaàc	<i>y^hāi dān</i>	‘ <i>Fregata</i> spp.’
NCal:	Fwāi	<i>yāidān</i>	‘ <i>Fregata ariel</i> ’
NCal:	Cēmuhî	<i>aidā</i>	‘ <i>Fregata</i> spp.’
NCal:	Paicî	<i>aidā</i>	‘ <i>Fregata</i> spp.’
NCal:	Ajië	<i>seidā</i>	

The Ajië name is explained as ‘the one who tells about the day’.

7.5 Waders (Charadriidae, Scolopacidae, Burhinidae)

More than twenty species of these shore birds frequent the coasts of the Oceanic homeland, but most are migrants seen only seasonally. Among the most commonly identified are the Bristle-thighed Curlew (*Numenius tahitiensis*), Whimbrel (*Numenius phaeopus*), Bartailed Godwit (*Limosa lapponica*), Wandering Tattler (*Heteroscelus incanus*), Pacific Golden Plover (*Pluvialis fulva*), and Ruddy Turnstone (*Arenaria interpres*). Field identification of these birds can be difficult, and even in Polynesia and Micronesia there are few cognate sets with completely consistent reference.

POc **jipiu* ‘wader’

MM:	Banoni	<i>civiū</i>	‘small migratory waders’
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MM:	Marovo	<i>suviu</i>	‘ <i>Tringa</i> spp.’
MM:	Nduke	<i>soviu</i>	‘general name for sandpipers, <i>Tringa</i> spp.’
		<i>toviu</i>	‘shore bird like a curlew, similar to <i>soviu</i> but smaller’
SES:	Gela	<i>di-diviu</i>	‘snipe’
SES:	To’aba’ita	<i>si-sifiu</i>	‘wader (perhaps <i>Numenius</i> sp.)’
SES:	Lau	<i>si-sifiu</i>	‘sandpiper’
SES:	Kwaio	<i>si-sifiu</i>	‘Common Sandpiper, <i>Actitis hypoleucos</i> ’
NCV:	Mwotlap	<i>(ne-men) si-sivi</i>	‘Pacific Golden Plover, <i>Pluvialis fulva</i> ’
NCV:	Kiai	<i>zi-zivi(ro)</i>	‘Wandering Tattler, <i>Heteroscelus incanus</i> ’
NCV:	Paamese	<i>si-sihī</i>	‘bird sp. found on coastal rocks’
NCV:	Lewo	<i>vio</i>	‘sea bird sp.’
NCV:	Nguna	<i>siviu</i>	‘shore bird sp.’
NCV:	S Efate	<i>sfiu, sfīw</i>	‘whimbrel’
NCal:	Pije	<i>difin</i>	
NCal:	Paicī	<i>dipiu</i>	‘Grey-tailed Tattler, <i>Tringa brevipes</i> and Ruddy Turnstone, <i>Arenaria interpres</i> ’

These Polynesian Outlier names are probably borrowings from Southeast Solomonic and Central Vanuatu languages, respectively:

Pn:	Rennellese	<i>siviu</i>	‘Great Sand Plover, <i>Charadrius leschinaultii</i> ’
Pn:	Emae	<i>siviu</i>	‘large shore bird sp.’

PWOc **kiwiwi* ‘sandpiper sp.’

PT:	Gumawana	<i>kiwiwi</i>	‘sandpiper sp.’
PT:	Iduna	<i>kiwiwi</i>	‘sandpiper: white bird with black on its back, inhabits creeks’
PT:	Bwaidoga	<i>kiwiwi</i>	‘sandpiper sp.’
PT:	Gapapaiwa	<i>kivivi</i>	‘sea bird’
PT:	Wedau	<i>kivivi</i>	‘plover; any kind of sand bird’
PT:	Motu	<i>kiwiwi</i>	‘Common Sandpiper, <i>Actitis hypoleucos</i> ’
MM:	Tabar	<i>kuvivi</i>	
MM:	Teop	<i>kivivi(o)</i>	‘sea bird sp.’

POc **p^wipipi* ‘small wader taxon’

PT:	Iduna	<i>fififi</i>	‘Rufous-necked Stint, <i>Calidris ruficollis</i> ’
MM:	Marovo	<i>pivivi</i>	‘ <i>Limosa</i> spp.’
MM:	Nduke	<i>pivivi</i>	‘ <i>Tringa</i> spp., sandpiper’
MM:	Roviana	<i>pivivi</i>	‘a small non-edible variety of sand snipe’
SES:	Lau	<i>k^wik^w</i>	‘snipe’

cf. also:

TM:	Buma	<i>vivi</i>	‘ <i>Charadrius</i> sp.’
NCV:	SE Ambrym	<i>hehe</i>	‘sandpiper sp.’
Pn:	Tuvalu	<i>vivi(tai)</i>	‘Wandering Tattler, <i>Heteroscelus incanus</i> ’
Pn:	Sikaiana	<i>(vīvī)tai</i>	‘Pacific Golden Plover, <i>Pluvialis fulva</i> ’



Figure 6.22 *Pluvialis fulva*, Pacific Golden Plover

PROc **kVlili* 'Wandering Tattler, *Heteroscelus incanus*'

NCal: Nêlêmwa *hilili* 'Heteroscelus incanus and Pacific Golden Plover, *Pluvialis fulva*'

PMic **k(i,u)lili* 'Wandering Tattler, *Heteroscelus incanus*'

Mic: Woleaian *il̩l(i)* 'plover'
 Mic: Chuukese *ir̩r* 'small plover'
 Mic: Namoluk *ilil*
 Mic: Kosraean *kulul* 'sandpiper'
 Mic: Marshallese *kir̩r̩*
 Mic: Kiribati *kiriri*

PPn **kolili* 'Wandering Tattler, *Heteroscelus incanus*'

Pn: Tongan *kolili* 'bird sp.'
 Pn: E Uvean *polili*
 Pn: Tokelauan *kolili*
 Pn: Tuvalu *kolili* 'Ruddy Turnstone, *Arenaria interpres*'
 Pn: Pukapukan *kolili*
 Pn: Nukuria *koriri* '*Arenaria interpres*'
 Pn: Sikaiana *kolili* 'bird sp.'
 Pn: Tikopia *kolili* 'Common Sandpiper, *Actitis hypoleucos*'
 Pn: Hawaiian *ʔūlili*
 Pn: Tahitian *ʔuriri*
 Pn: Tongarevan *kuriri*
 Pn: Rarotongan *kuriri*

PCP **tuli(i)* 'Pacific Golden Plover, *Pluvialis fulva*'

Fij: Rotuman *culi* '*Pluvialis fulva* and Wandering Tattler, *Heteroscelus incanus*'
 Fij: Bauan *doli* '*Pluvialis fulva*'

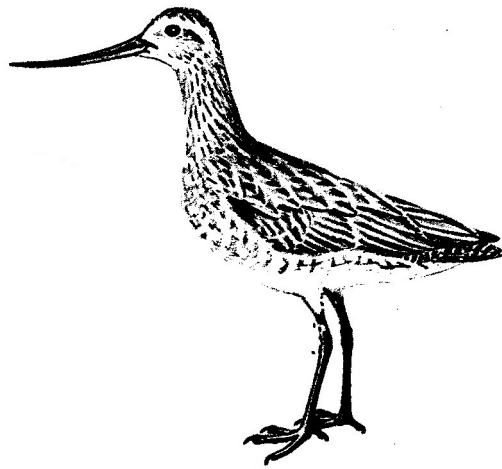


Figure 6.23 *Limosa lapponica*, Bar-tailed Godwit

Fij:	Wayan	<i>doli-doli, dilio</i>	' <i>Heteroscelus incanus</i> '
		<i>dolī</i>	' <i>Pluvialis fulva</i> '
		<i>doli-dolī</i>	' <i>Heteroscelus incanus</i> '
Pn:	E Futunan	<i>tuli</i>	'various small shore-bird spp., <i>Pluvialis</i> , <i>Limosa</i> , <i>Heteroscelus</i> '
Pn:	Samoan	<i>tulī</i>	'various shore bird spp., <i>Pluvialis</i> , <i>Arenaria</i> , <i>Numenius</i> , <i>Limosa</i> , <i>Heteroscelus</i> , <i>Calidris</i> '
Pn:	Pukapukan	<i>tuli</i>	
Pn:	Tuvalu	<i>tuli</i>	
Pn:	Nukuoro	<i>tuli</i>	
Pn:	K'marangi	<i>tuli</i>	' <i>Heteroscelus incanus</i> '
Pn:	Nukuria	<i>(te)tulia</i>	'Grey-rumped Sandpiper, <i>Heteroscelus brevipes</i> '
Pn:	Takuu	<i>turi</i>	'small black shore bird with white breast and large protruding eyes'
Pn:	Luangiua	<i>kili(kavoi)</i>	'Common Sandpiper, <i>Actitis hypoleucos</i> '
Pn:	Tikopia	<i>turi</i>	' <i>Pluvialis fulva</i> '
		<i>turi vare</i>	' <i>Heteroscelus incanus</i> '
		<i>turi fakataumako</i>	'Ruddy Turnstone, <i>Arenaria interpres</i> '
Pn:	Pileni	<i>tuli</i>	'a small wading bird'
Pn:	Marquesan	<i>turi</i>	' <i>Arenaria interpres</i> '
Pn:	Māori	<i>tu-turi(fatu)</i>	'dotterel, <i>Charadrius</i> spp.'
A probable Polynesian borrowing is Nehan <i>tulia</i> in the following three forms:			
MM:	Nehan	<i>tulia</i>	' <i>Actitis hypoleucos</i> '
		<i>tui-tui-tulia</i>	' <i>Pluvialis fulva</i> '
		<i>tulian</i>	' <i>Arenaria interpres</i> '
PPn * <i>kiu</i> ~* <i>kiwi</i> 'shore bird taxon including <i>Pluvialis</i> and <i>Numenius</i> '			
Pn:	Tongan	<i>kiu</i>	'any migratory wader'
Pn:	Niuean	<i>kiu</i>	

Pn:	E Uvean	<i>kiu</i>	‘ <i>Pluvialis fulva</i> and Bar-tailed Godwit, <i>Limosa lapponica</i> ’
Pn:	Pukapukan	<i>kiu</i>	‘plover sp.’
Pn:	Nukuoro	<i>kivi-kivi</i>	‘Ruddy Turnstone, <i>Arenaria interpres</i> ’
Pn:	Takuu	<i>kivi</i>	‘general name for shore and wading birds’
Pn:	Luangiua	<i>ivi</i>	
Pn:	Sikaiana	<i>kivi</i>	‘bird sp.’
		<i>kivi(aitu)</i>	‘Grey-rumped Sandpiper, <i>Heteroscelus brevipes</i> ’
		<i>kivi(talei)</i>	‘ <i>Arenaria interpres</i> ’
Pn:	Tikopia	<i>kiu</i>	‘Bristle-thighed Curlew, <i>Numenius tahitiensis</i> ’
Pn:	Anutan	<i>kiui</i>	‘a small bird which comes only during monsoon season’
Pn:	Emae	<i>kiu</i>	‘small shore bird sp.’
Pn:	Marquesan	<i>kivi</i>	‘Wandering Tattler, <i>Heteroscelus incanus</i> ’
Pn:	Mangarevan	<i>kivi</i>	‘Bristle-thighed Curlew, <i>Numenius tahitiensis</i> ’
Pn:	Tongarevan	<i>kivi</i>	‘ <i>Numenius tahitiensis</i> ’
Pn:	Manihiki	<i>kivi, kihi</i>	‘ <i>Numenius tahitiensis</i> ’
Pn:	Māori	<i>kiwi</i>	‘Kiwi, <i>Apteryx</i> spp.’

Probably borrowed from Polynesian:

MM:	Halia	<i>kivi</i>	‘generic term for waders, esp. <i>Pluvialis fulva</i> ’
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The set above is perhaps cognate with the set from which PWOC **kiwiwi* ‘sandpiper sp.’ (p.360) is reconstructed. There are also probable Western Oceanic cognates, namely Tawala (PT), Gapapaiwa (PT) *kiu* ‘bird (generic)’ and Nakanai (MM) *e-kivu* ‘bird sp.’. Together with the set above these imply the reconstruction of POC **kiu*, but its gloss cannot be reconstructed, as the Tawala and Gapapaiwa generic presumably reflects the promotion of a bird taxon term to generic status, and the Nakanai gloss is not specific.

Proto Central Eastern Polynesian **tōrea* ‘Pacific Golden Plover, *Pluvialis fulva*’

Pn:	Hawaiian	<i>kōlea</i>	
Pn:	Tahitian	<i>tōrea</i>	
Pn:	Tongarevan	<i>tōrea</i>	
Pn:	Manihiki	<i>tōrea</i>	
Pn:	Rarotongan	<i>tōrea</i>	
Pn:	Māori	<i>tōrea</i>	‘Oystercatcher, <i>Haematopus</i> spp.’

PMic **kulu* ‘wader’ (Bender et al. 2003: ‘bird sp.’)

Mic:	Mokilese	<i>kūl</i>	‘bird sp.’
Mic:	Ponapean	<i>kulu</i>	‘Pacific Golden Plover, <i>Pluvialis fulva</i> ’
Mic:	Marshallese	<i>k^wōl</i>	‘ <i>Calidris</i> spp.’
		<i>k^wel</i>	‘semipalmated sandpiper’
		<i>k^wel-(yəc)</i>	‘golden plover’
Mic:	Kiribati	<i>kun</i>	‘ <i>Pluvialis fulva</i> ’

Proto Chuukic-Ponapeic **kul(i,u)ŋa* ‘plover’

Mic:	Sonsorolese	<i>yīriŋa, kiriŋ</i>	‘sandpiper, dotterel’
Mic:	Woleaian	<i>xuruŋ(o)</i>	‘golden plover’
Mic:	Carolinian (Tanapag)	<i>guliŋ</i>	‘sp. of coastal bird, plover or sandpiper’
Mic:	Puluwatese	<i>kiliŋ</i>	‘Pacific Golden Plover, <i>Pluvialis fulva</i> ’
Mic:	Namoluk	<i>kiliŋ</i>	‘ <i>Pluvialis fulva</i> ’
Mic:	Chuukese	<i>kurīŋ</i>	‘plover’

Probable borrowing from a Micronesian language:

Yap:	Yapese	<i>?kuleŋ</i>	‘type of sea bird’
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PROc **keke~*kaka* ‘wader’

SV:	Anejoñ	<i>na-yay</i>	‘Wandering Tattler, <i>Heteroscelus incanus</i> ’
NCal:	Nyelây	<i>cēēk</i>	‘shore bird’
Mic:	Woleaian	<i>(riy)ak(a)</i>	‘bristle-thighed curlew’
Mic:	Puluwatese	<i>(liye)kāk</i>	‘long-necked migratory shore bird’
Mic:	Namoluk	<i>(lia)kak</i>	‘Whimbrel, <i>Numenius phaeopus</i> ’
Mic:	Chuukese	<i>(riye)kak</i>	‘bird sp.’
Mic:	Marshallese	<i>(l^wa)keke</i>	‘ <i>Pluvialis fulva</i> , black variety in breeding plumage’
Mic:	Kiribati	<i>kaka</i>	‘Bar-tailed Godwit, <i>Limosa lapponica</i> ’

Probable borrowings from some Micronesian language are:

Pn:	Nukuoro	<i>kaka</i>	‘bird sp.’
Pn:	K’marangi	<i>kaka</i>	‘Bristle-thighed Curlew, <i>Numenius tahitiensis</i> ’

Hote (NNG) *kakap^yak*, glossed as a ‘small black bird like a swallow; doesn’t sit in a tree but on rock; morning and afternoon it catches insects in sky’ is a possible Western Oceanic cognate, but its similarity to the items above may be due to chance.

PPn **(lafu)lafulafu* ‘wader sp.’

Pn:	Nukuoro	<i>lahulahu</i>	‘Wandering Tattler, <i>Heteroscelus incanus</i> ’
Pn:	Tokelauan	<i>lefulefu</i>	‘Sanderling, <i>Calidris alba</i> ’
Pn:	Pukapukan	<i>lewulewu</i>	‘ <i>Calidris alba</i> ’
Pn:	Tongarevan	<i>(kā)rahurahu</i>	‘Blue-gray Noddy, <i>Procelsterna cerulea</i> ’
Pn:	Rarotongan	<i>(ngōio-ṛā)reṛureṛu</i>	‘ <i>Procelsterna cerulea</i> ’

The following may be cognate, though the semantic connection is hardly close:

Pn:	Tongan	<i>lafu</i>	‘petrel’
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Finally, one very distinctive shore bird, much larger than the rest, with heavy build and thick bill, is well known in the western Solomons:

Proto NW Solomonian **(b,v)ili/[ki(k,t)i]* ‘Beach Stone-Curlew, *Burhinus neglectus*’

MM:	Marovo	<i>bilikiki</i>	
MM:	Nduke	<i>vivili</i>	
MM:	Roviana	<i>bilikiki</i>	‘large whitish bird, frequents beach, flat bill, fond of hermit crabs, etc.’
MM:	Simbo	<i>bilikiki</i>	‘bird sp.’

MM:	Maringe	<i>bi(li)bili</i>	
MM:	Kia	<i>bilikiti</i>	‘bird sp., eats crabs’

7.6 Terns (Laridae)

The family Laridae includes both gulls and terns. Gulls are mainly birds of the temperate zones, and are only rare visitors to tropical Oceania. The common gloss ‘seagull’ in dictionaries and vocabularies of languages in this area almost certainly indicates a tern. Several species of tern (*Sterna*, *Thalasseus*) are common in the waters of the homeland, along with noddies (*Anous*) and the very distinctive White Tern (*Gygis alba*).

PMP **kanaway* ‘white bird’ (Blust 2002)

POc **kanawe* ‘tern, *Sterna* spp.’

Adm:	Loni	<i>kanaw</i>	‘bird sp. with black body and white head and beak; possibly a kind of noddy’
Adm:	Nyindrou	<i>kanau</i>	‘white seagull’
Adm:	Lou	<i>kana</i>	‘seagull’
NNG:	Yabem	<i>kano</i>	‘seagull’
NNG:	Labu	<i>kanôla</i>	‘small sp. of seagull’
NNG:	Mapos Buang	<i>kan</i>	‘seagull’
NNG:	Bariai	<i>kanae-nae</i>	‘sea tern’
NNG:	Kove	<i>anae</i>	‘sea tern’
NNG:	Lusi	<i>anae</i>	‘sea tern’
NNG:	Bing	<i>kanay</i>	‘seagull’
NNG:	Gedaged	<i>kanai</i>	‘a sea gull’
NNG:	Dami	<i>kanai</i>	‘seagull’
NNG:	Takia	<i>kanai</i>	‘seagull’
NNG:	Mangap	<i>kanae</i>	‘seagull’
NNG:	Kilenge	<i>kanae</i>	‘sea tern’
PT:	Tawala	<i>kanawe</i>	‘seagull’
PT:	Ubir	<i>kanau</i>	‘seagull’
PT:	Nimoa	<i>kan-kanau</i>	‘seagull’
PT:	Motu	<i>kanaye</i>	‘seagull’
MM:	Patpatar	<i>kanaia</i>	‘roseate tern’
MM:	Tolai	<i>kənai</i>	‘ <i>Sterna</i> sp.’
MM:	Halia	<i>nai</i>	‘Black-naped Tern, <i>Sterna sumatrana</i> ’
MM:	Taiof	<i>kanai</i>	‘tern’
SES:	Gela	<i>ganae</i>	‘a seagull, larger than <i>sele</i> ’
SES:	Longgu	<i>anawa</i>	‘tern’
SES:	To’aba’ita	<i>ʔanak^we</i>	‘ <i>Sterna</i> sp.’
SES:	Kwaio	<i>ʔanak^we</i>	‘gull sp.’
SES:	Arosi	<i>ʔanawe</i>	‘Red-billed Tropic Bird, <i>Phaethon aethurus</i> ’
Mic:	Sonsorolese	<i>xainiau</i>	‘birds of seagull type’

Although terns and tropic birds could be confused at a distance, the species identified for Arosi would be a rare stray in this part of the Pacific.

POc **sele(kai)* ‘tern’

Adm:	Loniu	<i>celehēy</i>	‘small white bird sp., possibly a tern’
MM:	Marovo	<i>celekae</i>	‘ <i>Sterna</i> spp., esp. <i>albifrons</i> ’
MM:	Nduke	<i>helekai</i>	‘ <i>Sterna</i> spp.’
MM:	Roviana	<i>helekae</i>	‘white sea bird, often seen in flocks over a shoal of fish’
MM:	Simbo	<i>elekai</i>	‘white sea bird sp.’
MM:	Kia	<i>helekai</i>	‘seagull’
SES:	Gela	<i>sele</i>	‘seagull’

cf. also:

Mic:	Sonsorolese	<i>kirigay, xirixax</i>	‘Common Noddy, <i>Anous stolidus</i> ’
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POc **ker(a,e)(ker(a,e))* ‘tern’

PT:	Tubetube	<i>(man)kelakela</i>	‘seagull’
PT:	Dobu	<i>(me)kela</i>	‘seagull’
PT:	Iduna	<i>(mai)?ela</i>	‘tern (generic)’
PT:	Ubir	<i>(manu)kerer</i>	‘seagull’
PT:	Kilivila	<i>(me)kela</i>	‘seagull’
PT:	Misima	<i>(man)kelakela</i>	‘seagull’
MM:	Teop	<i>kera</i>	‘tern (generic)’
MM:	Roviana	<i>(de)kere</i>	‘noddy’
MM:	Simbo	<i>(de)keive</i>	‘black sea bird sp.’
MM:	Nduke	<i>(de)kere</i>	
MM:	Marovo	<i>(de)kere</i>	
Mic:	Kiribati	<i>kerēkere</i>	‘Sooty Tern, <i>Sterna fuscata</i> ’

PMic **karakara* ‘tern’

Mic:	Carolinian	<i>arār</i>	‘small black bird sp.’
Mic:	Woleaian	<i>xarexar</i>	‘grey-backed tern’
Mic:	Puluwatese	<i>yaṛār</i>	‘sooty tern sp.’
		<i>kaṛe(fas)</i>	‘tern sp.’
Mic:	Namoluk	<i>arar</i>	‘Black-naped Tern, <i>Sterna sumatrana</i> ’
		<i>ara(fao)</i>	‘Greater Crested Tern, <i>Thalasseus bergii</i> ’
Mic:	Chuukese	<i>arār</i>	‘white tern’
Mic:	Marshallese	<i>keār</i>	‘ <i>Sterna</i> spp.’
Mic:	Kiribati	<i>karakara</i>	‘ <i>Thalasseus bergii</i> ’

cf. also:

MM:	Nehan	<i>kara</i>	‘tern (generic)’
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POc **kiRa* ‘White Tern, *Gygis alba*’

Yap:	Yapese	<i>gīgiy</i>	‘bird sp.’
MM:	Halia	<i>kira</i>	‘Little Tern, <i>Sterna albifrons</i> ’
MM:	Petats	<i>kira</i>	‘small white seabird which dives for small fish’

PMic **kiakia* 'White Tern, *Gygis alba*'

Mic:	Sonsorolese	<i>giegi</i>	
Mic:	Woleaian	<i>xiyexiy</i>	'white or fairy tern'
Mic:	Carolinian (Tanapag)	<i>giyegi</i>	'white bird sp.'
Mic:	Puluwatese	<i>kiyekiy</i>	
Mic:	Namoluk	<i>ekiek</i>	
Mic:	Chuukese	<i>ekiyek</i>	
Mic:	Ponapean	<i>kāke</i>	'fairy tern'
Mic:	Kiribati	<i>kiakia</i>	'Black-naped Tern, <i>Sterna sumatrana</i> '
Mic:	Nauruan	<i>(da)gigia</i>	'white tern'

PPn **aki-aki* 'White Tern, *Gygis alba*' (metathesis)

Pn:	Tongan	<i>ʔekiaki</i>	
Pn:	E Futunan	<i>akiaki</i>	
Pn:	Tokelauan	<i>akiaki</i>	
Pn:	Tuvalu	<i>akiaki</i>	' <i>Sterna sumatrana</i> '
Pn:	Pukapukan	<i>akiaki</i>	' <i>Sterna sumatrana</i> '
Pn:	Nukuoro	<i>akiaki</i>	
Pn:	Nukuria	<i>te-akiaki</i>	
Pn:	Luangiua	<i>iaʔi</i>	'white sea bird'
Pn:	Tikopia	<i>akiaki</i>	
Pn:	Rapanui	<i>kiakia</i>	

The following two terms from Polynesian Outliers show a closer resemblance to the Halia form above than to the rest of Polynesian, and are probably borrowed from some North Solomons language:

Pn:	Takuu	<i>kinakina</i>
Pn:	Sikaiana	<i>kinakina</i>

POc **b^wauro* 'tern'

TM:	Buma	<i>bauro, bauri</i>	'noddy, <i>Anous</i> sp.'
NCV:	Labo	<i>nu-^mbuaxa (ne-tes)</i>	'gull' (<i>tes</i> 'sea water')
NCV:	SW Bay	<i>ni-^mbuar (aj^mbata^mbat)</i>	'gull'
NCV:	Maskelynes	<i>(na-li)^mbuer</i>	'gull'
NCV:	Port Sandwich	<i>(li)^mbuer</i>	'seagull'
NCal:	Nyelâyü	<i>bor(ivic)</i>	'sea bird'
NCal:	Nêlêmwa	<i>bor(iric)</i>	'tern, <i>Sterna</i> spp.'
Mic:	Marshallese	<i>p^wōr^w(ōc)</i>	'a white sea bird'

POc **golo* 'tern'

MM:	Banoni	<i>(va)yora</i>	'noddy sp.'
MM:	Marovo	<i>(va)golo</i>	'Greater Crested Tern, <i>Thalasseus bergii</i> '
MM:	Nduke	<i>(va)golo</i>	' <i>Sterna</i> sp., <i>bergii</i> '?
MM:	Roviana	<i>(va)golo</i>	'sea bird, often seen with <i>helekae</i> following shoals of bonito etc.'

MM:	Simbo	(va)golo	‘sea bird sp.’
MM:	Kia	(va)yolo	‘Common Tern, <i>Sterna hirundo</i> ’
NCV:	Mwotlap	na-tkol	‘Black-naped Tern, <i>Sterna sumatrana</i> ’ (??)’
NCal:	Fwâi	k ^h ôle	‘ <i>Sterna sumatrana</i> ’
NCal:	Cèmuhî	hōôle	‘Fairy Tern, <i>Sterna nereis</i> ’
Mic:	Mokilese	(sa)kəl	‘tern sp. with white crest’

PAdm *baraŋ~*rabaŋ ‘tern’

Adm:	Mussau	rabaŋana	‘seagull’
Adm:	Loniu	paŋaŋ	‘white seabird sp., flies over sea and feeds on small fish; possibly tern or heron’
Adm:	Nyindrou	barak	‘black seagull’

PAdm *baraŋ is reconstructed on the basis of the Loniu and Nyindrou terms. Mussau *rabaŋana* points to earlier *rabaŋan (or *baraŋan), but the relationship of Mussau to the Admiralties languages is not well enough understood to know what protolanguage this earlier term occurred in.

PPn *tala ‘tern’

Pn:	Tongan	tala	‘Greater Crested Tern, <i>Thalasseus bergii</i> and other terns with mainly white plumage’
Pn:	E Uvean	tala	‘White Tern, <i>Gygis alba</i> ’
		tala(ŋoŋo)	‘Black-naped Tern, <i>Sterna sumatrana</i> ’
Pn:	Tokelauan	tala(ŋoŋo)	‘Sooty Tern, <i>Sterna fuscata</i> ’
Pn:	Tuvalu	tala	‘ <i>Thalasseus bergii</i> ’
		tala(liki)	‘ <i>Sterna fuscata</i> or Blue-grey Noddy, <i>Procelsterna cerulea</i> ’
		tala(alofi)	‘Spectacled Tern, <i>Sterna lunata</i> ’
Pn:	Nukuoro	tala	‘tern (?) vagrant species, hardly ever seen’
Pn:	K’marangi	tala	‘ <i>Sterna lunata</i> ’
Pn:	Takuu	tara	‘ <i>Thalasseus bergii</i> , <i>Sterna fuscata</i> , and other terns with black heads’
Pn:	Sikaiana	tala	‘seagull sp.’
		tala	‘ <i>Thalasseus bergii</i> ’
		tala(mona)	‘ <i>Sterna fuscata</i> ’
Pn:	Pileni	tala	‘diving sea bird sp.’
Pn:	Rennellese	taga	‘ <i>Thalasseus bergii</i> ’
Pn:	Tikopia	tara moana	‘small kingfisher-like sea bird’
Pn:	Emae	tara	‘largest sp. of tern’
Pn:	Marquesan	taŋa	‘ <i>Sterna fuscata</i> ’
Pn:	Mangarevan	tarara	‘ <i>Thalasseus bergii</i> ’
Pn:	Tahitian	tarā(papa)	‘ <i>Thalasseus bergii</i> ’
Pn:	Manihiki	tara	‘ <i>Sterna fuscata</i> ’
Pn:	Māori	tara	‘various tern and gull spp.’

and probable Polynesian borrowings:

Fij:	Rotuman	tala	‘ <i>Thalasseus bergii</i> ’ (expected †fala)
Mic:	Kiribati	tara(ŋoŋo)	‘ <i>Sterna lunata</i> ’

Watling (2004:208) gives Fijian *tala* (dialect unspecified) for ‘*Gygis alba*’, but this is unconfirmed by other sources.

The following term for a particular tern species may originate from a compound with **tala*, though the identity of the second element is unclear.

PNPn **[ta]lapiti* ‘Black-naped Tern, *Sterna sumatrana*’

Pn:	Nukuoro	<i>lepiti</i>	‘white tern?’
Pn:	K’marangi	<i>tolopiti</i>	
Pn:	Nukuria	<i>tropiti</i>	
Pn:	Takuu	<i>lopiti</i>	
Pn:	Luangiua	<i>(ka)lapiki</i>	
Pn:	Sikaiana	<i>tapiti</i>	
Pn:	Rennellese	<i>gopiti</i>	

The noddies are smaller, generally dark-coloured relatives of the terns. Reconstructible terms for them are restricted to Central Pacific languages

PCP **ŋoŋo* ‘Common Noddy, *Anous stolidus*’

Fij:	Rotuman	<i>ŋoŋo</i>	
Fij:	Lau, Taveuni	<i>ŋoŋo</i>	‘ <i>Anous</i> spp.’
Fij:	Wayan (Viwa)	<i>ŋoŋo(sawa)</i>	‘ <i>Anous</i> spp.’
Pn:	Tongan	<i>ŋoŋo</i>	
Pn:	Niuean	<i>ŋoŋo</i>	
Pn:	Samoa	<i>ŋoŋo</i>	‘ <i>Anous</i> spp.’
Pn:	Pukapukan	<i>ŋoŋo</i>	
Pn:	Nukuoro	<i>ŋoŋo</i>	
Pn:	Nukuria	<i>(te)nono</i>	
Pn:	Takuu	<i>nnō</i>	
Pn:	Sikaiana	<i>nono</i>	
Pn:	Rennellese	<i>ŋoŋo</i>	
Pn:	Tikopia	<i>ŋoŋo</i>	

An irregular change leads to forms reflecting Proto Central Eastern Polynesian **ŋoio*:

Pn:	Hawaiian	<i>noio</i>	‘White-capped Noddy, <i>Anous minutus</i> ’
Pn:	Mangarevan	<i>ŋoio</i>	
Pn:	Tahitian	<i>ʔōio</i>	
Pn:	Rarotongan	<i>ŋōio</i>	

The following term, like **lapiti* above, may originally have been a compound of **tala* with an unidentified second element:

PNPn **[ta]lakia* ‘White-capped Noddy, *Anous minutus*’

Pn:	Samoa	<i>laia</i>	‘Blue-grey Noddy, <i>Procelsterna cerulea</i> ’
Pn:	Tokelauan	<i>lakia</i>	
Pn:	Tuvalu	<i>lakia</i>	
Pn:	Pukapukan	<i>lakia</i>	
Pn:	Nukuoro	<i>lekia</i>	

Pn:	K'marangi	<i>manu-telekia</i>
Pn:	Nukuria	<i>terakia</i>
Pn:	Takuu	<i>lakia</i>
Pn:	Luangiua	<i>leia, leʔiʔa</i>
Pn:	Sikaiana	<i>lekia, leia</i>
Pn:	Tikopia	<i>rakia</i>
Pn:	Tongarevan	<i>rakia</i>
Pn:	Manihiki	<i>rakie</i>

7 *Insects and other creepy-crawlies*

MEREDITH OSMOND

1 Introduction

The Oceanic Lexicon Project is concerned both with reconstruction of POc terms and their meanings and with compiling a picture of the kind of culture that can be associated with these reconstructed concepts.¹ My intention here is not just to identify the insects that existed in the world of Proto Oceanic speakers but also to consider their role in it. Were they dangerous or merely pesky, harmless, insignificant or perhaps useful? Were they associated with the supernatural? The perceived role of an insect depends on the way in which it impinges on human lives, whether by biting or stinging, by being highly visible or noisy, by attacking woodwork or food plants, by being a valued food, and so on. Occasionally we find linguistic clues that throw additional light.

It should be noted that the term ‘insects’ is used here in its popular extended sense to include spiders, centipedes, and other creepy-crawlies such as grubs, worms and leeches.

The difficulty of the task is increased by the sheer size of the Oceanic world, involving as it does many different environments. Compared with other animals, insects are highly adaptable (capable of living in a wide range of environments), easily transportable (by man, animal or wind), and numerous in both kind and number. Consequently, it is difficult to plot the distribution of even a major order, such as scorpions or leeches. Ideally it would be useful to know whether a given creature exists in a region (in one or more readily identifiable species), and if so, whether it has been there at least as long as the first settlers. Even this information is of little use, however, unless we also have local names. Specialised entomological tomes, dealing with, say, the Hymenoptera of Vanuatu, rarely have this information.

For the time being, then, we make do with the most readily available information, culled from general wordlists fleshed out by ethnographic descriptions. Many apparent cognates show unexpected variation in gloss, so that the term for a mosquito in language A becomes that for sandfly in language B, wasp terms move to bee, centipede to millipede, grasshopper

¹ Particular thanks are due to Andrew Pawley and Malcolm Ross for unfailing help and advice. I am also grateful to Ann Chowning, John Lynch, Ross Clark and the late Phil Quick for a host of useful data and comments.

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to cricket to cicada, and so on. I have to decide if this is due to change in distribution of the creature, or perhaps reflects the insect's lack of importance to a community, or may be a deficiency in the wordlist.

Another factor to be considered is a seemingly high degree of phonological irregularity in some insect names. This manifests itself at times in collections of terms which share strong resemblance but for which no reconstruction is possible. At other times it results in doublets, where two or more very similar reconstructions can be made for the same insect. Terms for noisy insects are likely to be influenced by onomatopoeia, while terms for insects that jump or sting or tickle may be derived from relevant verbs. This may help explain why I can have several reconstructions for an insect that are based on quite limited cognate sets, but no one dominant form. In contrast, terms such as POc **kutu* 'louse' and POc **lano* 'fly' are particularly stable, their reflexes occurring in a very high proportion of languages throughout the Oceanic region.

One further concern of this chapter is the role of a particular prefix in insect names as a possible supernatural marker. In 1983 Robert Blust presented a paper at the Third Eastern Conference on Austronesian Linguistics entitled *A linguistic key to the early Austronesian spirit world*.² It dealt with the frequent occurrence of an affix, often fossilised, in Austronesian languages, traceable back to PAN. Its typical form was *qali-* or *kali-*, although there were a number of variants. Blust listed 62 lexical sets containing over 570 examples from about 50 languages distributed geographically from Taiwan to Polynesia, with the vast majority occurring in Western Malayo-Polynesian languages. When these 62 lexical sets were sorted into semantic categories, 20 were for creepy-crawly life forms, the largest single category. Other categories were bats/birds (six sets including doves, owls), striking natural phenomena (six sets, including rainbows, echoes, whirlpools), body parts (five sets, including pupil of eye, hair whorl), and muddled psychological states (four sets, including being dizzy, talking/walking in one's sleep). The puzzle for Blust was to assign a single conceptual principle that linked these apparently disparate meanings. If *qali-/kali-* was a morpheme, what did it mean?

He realised that in a substantial number of cases the referents had a connection—most commonly a dangerous connection—with the world of spirits. Insects in particular were associated with spirits of the dead. The *qali-/kali-* terms listed by Blust (updated in 2001:37) refer to the following creepy-crawlies: ant/termite, honey bee, bumble bee, beetle, butterfly, caterpillar, centipede, cockroach, crab, cricket, dragonfly, earthworm, firefly, flea, gecko, grasshopper, jungle leech, paddy leech, luminous millipede, scorpion, snake, spider, wasp. Other phenomena he lists (rainbows, whirlpools, sleep-walking etc.) are thought of as supernatural events/conditions. In other words, the *qali-/kali-* terms indicated a taboo, a warning that certain kinds of behaviour were to be avoided in the presence of these creatures or events. It would be an advantage for such taboos to be linguistically clearly marked, to be learned early by children.

Blust strengthens his argument by considering the kinds of insects which are *not* marked by *qali-/kali-*. He sorts them into creatures that (i) tend to invade human space (maggot, horsefly, housefly, both types of lice, mosquito, nit), or (ii) are economically important either because they are edible (sago grub), or because they cause damage to human crops or

² Now published as Blust (2001).

constructions (termite).³ In contrast, the marked creatures have little or no economic importance. In addition, some of these, particularly fireflies and luminous millipedes, have unusual properties which might be regarded as supernatural (pp 37–38).

Blust concludes his argument: ‘In short, then, the function of the *qali-/kali-* prefix evidently was to mark facets of experience that were regarded as spiritually dangerous, hence requiring special precautions of a sort likely to be violated by incompletely acculturated children. It did this purely by lengthening the affixed word to an atypical quadrisyllabic shape, hence marking the associated semantic categories as those requiring particular behavioural sensitivity’ (p.59).

One of my purposes in this study, then, is to see to what extent *qali*-denoted insects are regarded as creatures with supernatural associations in Oceanic languages. At first glance, it would seem that the Oceanic lexical forms no longer hold the same WARNING TAKE CARE message. Nonetheless, the affix, or traces of it, occurs in a large number of Oceanic languages in a range of insect terms, and I have been able to reconstruct it to POc level in a small number of items.

2 Lice (Order Anoplura: Family Pediculidae)

One of the largest cognate sets in the entire lexicon of POc reconstructions is that reflecting **kutu* ‘louse’. Its reflexes serve in places as a generic term for lice and fleas, often in compound form, when they refer to other creatures parasitic on plants or animals such as ‘pig louse’ or ‘dog flea’. The very size of the set (I have over 100 reflexes) and their consistency of referent, must reflect its relative salience for witnesses in contemporary languages. The set below is simply a representative sample. Also reconstructed is POc **tuma* ‘body louse’. In Nakanai, Roviana and Gela, languages where reflexes of both **kutu* and **tuma* survive, reflexes of **tuma* now refer to ‘flea, house louse, bed bug’, ‘house bug’ or ‘(mat-eating) moth’ respectively. As well, I have a widely reflected term for the louse egg or nit and a number of terms for the action of searching for headlice. This grooming activity was no doubt a regular feature of social life.

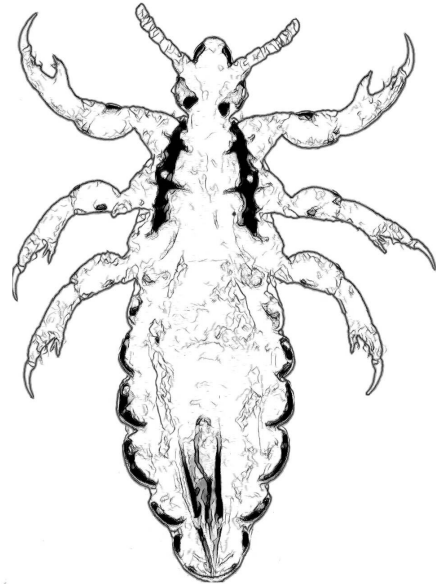


Figure 7.1 *Pediculus humanus capitis*, head louse (male)

³ Where a creature is listed as both marked and unmarked, the unmarked tends to be generic while the marked singles out individual species (Blust 2001:37).

2.1 Head lice

PAn **kuCu* ‘louse’ (Blust 2002)PMP **kutu* ‘louse’POc **kutu* (1) ‘louse (generic)’, (2) ‘head louse’

Adm:	Kaniet	<i>uto</i>	‘louse’
Adm:	Lou	<i>kut</i>	‘louse’
NNG:	Sio	<i>kutu</i>	‘louse’
NNG:	Roinji	<i>yutu</i>	‘louse’
NNG:	Wampur	<i>gur</i>	‘louse’
NNG:	Gedaged	<i>ut</i>	‘louse, flea, plant louse, tick’
PT:	Are	<i>kutu</i>	‘louse’
PT:	Bwaidoga	<i>utu</i>	‘louse’
PT:	Molima	<i>ʔutu</i>	‘louse’
PT:	Motu	<i>utu</i>	‘louse’
MM:	Vitu	<i>yutu</i>	‘louse’
MM:	Nakanai	<i>utu</i>	‘louse, dog flea’
MM:	Roviana	<i>yutu</i>	‘louse’ (<i>yutu siki</i> ‘dog flea’)
SES:	Bugotu	<i>yutu</i>	‘louse’
SES:	Gela	<i>yutu</i>	‘louse’
SES:	Lau	<i>ʔū</i>	‘louse, flea’
SES:	’Are’are	<i>ū</i>	‘louse, flea’
NCV:	Mota	<i>wutu</i>	‘louse’
NCV:	Raga	<i>gutu</i>	‘generic for biting lice and sucking lice’ (<i>gutu-boe</i> ‘pig louse’, <i>gutu-n-manu</i> ‘bird louse’)
NCV:	Tamambo	<i>hutu</i>	‘louse’
NCV:	Nguna	<i>kūtu</i>	‘louse’
SV:	Lenakel	<i>kur</i>	‘louse’
SV:	Kwamera	<i>ur</i>	‘louse’
NCal:	Nemi	<i>cīk</i>	‘louse’
NCal:	Nixumwak	<i>ciyic</i>	‘louse’
NCal:	Iaai	<i>uto</i>	‘louse’
Mic:	Kiribati	<i>uti</i>	‘louse’
Mic:	Kosraean	<i>kut</i>	‘louse’
Fij:	Rotuman	<i>ʔufu</i>	‘louse’
Fij:	Wayan	<i>kutu</i>	(1) ‘head louse’, (2) ‘generic for lice and fleas’
Fij:	Bauan	<i>kutu</i>	‘crab louse, flea’
Pn:	Tongan	<i>kutu</i>	‘louse’ (<i>kutu-fisi</i> ‘flea’, <i>kutu-lotuma</i> ‘bedbug’)
Pn:	Rennellese	<i>kutu</i>	‘louse, bird louse, mite, leech, tiny insects of various kinds’
Pn:	Samoan	<i>ʔutu</i>	‘louse’
Pn:	E Futunan	<i>kutu</i>	‘head louse’
Pn:	Tikopia	<i>kutu</i>	‘head louse’
Pn:	Hawaiian	<i>ʔuku</i>	‘any small insects: louse, flea, mite’

2.2 Body lice

Because clothes did not feature strongly in the lives of Proto Oceanic speakers, who did not make use of woven cloth, I have preferred to gloss the POc reflex of PAn **tumeS* ‘clothes louse’ as ‘body louse’. These creatures would no doubt have continued to exist in Proto Oceanic household items such as the woven pandanus matting generally used as sleeping mats (vol.1, p.80). Although the term has survived in Proto Oceanic, its PAn/PMP meaning has been restored in Niuean and East Futunan reflexes, perhaps fortuitously, through the modern advent of clothing. It seems that in societies where woven clothes were not worn, the distinction between the different kinds of lice was not significant, and either term was used in places as a generic for functionally similar creatures.

PAn **tumeS* ‘clothes louse’ (Blust 2002)

PMP **tumah* ‘clothes louse’

POc **tuma* ‘body louse’

NNG:	Kove	<i>tuma</i>	‘louse, flea’
NNG:	Numbami	<i>tuma</i>	‘louse’
PT:	Gapapaiwa	<i>tuma</i>	‘louse’
PT:	Ouma	<i>tuma</i>	‘louse’
PT:	Suau	<i>tuma</i>	‘louse’
MM:	Nakanai	<i>tuma</i>	‘house louse, bed bug, flea’
MM:	Bola	<i>tuma</i>	‘bug’
MM:	Nehan	<i>tuma(su)</i>	‘bedbug’
MM:	Roviana	<i>tuma(o)</i>	‘house bug’ (cf also <i>tuma-rere</i> ‘stinking black cockroach’, <i>tuma-rititi</i> ‘k.o. dragonfly’)
SES:	Gela	<i>tuma</i>	‘(mat-eating) moth’
SES:	Fagani	<i>(a)um^wa</i>	‘louse’
Pn:	Niuean	<i>tuma</i>	‘clothes louse’
Pn:	Tongan	<i>tuma</i>	‘k.o. louse’
Pn:	E Futunan	<i>tuma</i>	‘body or clothes louse’

2.3 Nits

In addition to POc **lisaq* ‘nit’ I have reconstructed PWOC **lejan* ‘nit’. Both forms are securely based. No language has reflexes of both. Their formal similarity may be due to chance or may reflect an early borrowing.

PAn **liseqeS* ‘nit, louse egg’ (Blust 2002)

POc **lisaq* ‘nit’ ⁴

Adm:	Mussau	<i>lisa</i>	‘louse’
Adm:	Lou	<i>lisa</i>	
NNG:	Wogeo	<i>lisa</i>	
NNG:	Kove	<i>lare</i>	(vowel metathesis)

⁴ Retention of final vowel in Lenakel *ki-lha*, Kwamera *k^wa-resa* suggests that **-q* was present (John Lynch, pers. comm.)

MM:	Patpatar	<i>lise</i>	
MM:	Ramoaaina	<i>lia</i>	
MM:	Nehan	<i>lih</i>	
MM:	Halia	<i>lisa</i>	
MM:	Teop	<i>niha</i>	
SES:	Gela	<i>liha</i>	
SES:	Talise	<i>lisa</i>	
SES:	Kwaio	<i>lita</i>	
NCV:	Mota	<i>lisa</i>	
NCV:	Tamambo	<i>lisa</i>	
NCV:	Nguna	<i>lisa</i>	
SV:	Anejoñ	<i>na-laθ</i>	
SV:	Lenakel	<i>(ki)lha</i>	
SV:	Kwamera	<i>(k^wa)resa</i>	
SV:	Sye	<i>ne-lis</i>	
NCal:	Nemi	<i>ñ^hida</i>	
Mic:	Kiribati	<i>rina</i>	(metathesis)
Mic:	Ponapean	<i>çīl</i>	(metathesis)
Fij:	Bauan	<i>lise</i>	
Pn:	Tongan	<i>liha</i>	
Pn:	Samoan	<i>lia</i>	
Pn:	Tikopia	<i>rie</i>	‘nits of head lice’
Pn:	Māori	<i>riha</i>	
Pn:	Hawaiian	<i>lia, liha</i>	

PWOC **lejaŋ* ‘nit’

NNG:	Tuam	<i>les</i>	
NNG:	Mangap	<i>leze</i>	
NNG:	Yabem	<i>leşeŋ</i>	
PT:	Dobu	<i>neda</i>	
PT:	Molima	<i>neda</i>	
PT:	Tawala	<i>neda</i>	
PT:	Kilivila	<i>lesa</i>	
PT:	Sudest	<i>leleji</i>	
MM:	Vitu	<i>leda</i>	
MM:	Bali	<i>ledaŋa</i>	
MM:	Meramera	<i>lesa</i>	‘nit; louse’

PWOC **ka(R,r)oma* ‘nit’

NNG:	Labu	<i>alɔma(la)</i>	
MM:	Hoava	<i>karoma</i>	

2.4 Search head for lice

One POc term and one PROc term have been reconstructed with specific reference to searching for lice. Other terms with more general meaning, particularly POc **tirop*, **tirop-i* ‘look intently’, are sometimes used. In Kove (NNG) the expression is *ravu tuma* ‘feel for lice’ (Ann Chowning, pers. comm.). These terms indicate the likelihood of reciprocal grooming, an activity undertaken in many societies as part of social interaction.

PMP **tin[d]ap* ‘look intently’ (Dempwolff 1938)

POc **tiro(p)*, **tirop-i-* ‘look intently, look for (lice etc.)’

MM:	Roviana	<i>ti-tiro</i>	‘search for’
SES:	Lau	<i>irofi</i>	‘look at fixedly, look for’
SES:	Kwaio	<i>ilo(i) (falaina)</i>	‘search hair (i.e. for lice)’ (<i>falaina</i> ‘hair’)
SES:	’Are’are	<i>iro</i>	‘look for, collect’
SES:	Sa’a	<i>irohi</i>	‘clear the head of lice’
SES:	Arosi	<i>(ha)irōhi</i>	‘look for lice in the hair’ (<i>ha-</i> ‘verbal prefix’)
Pn:	W Futunan	<i>jiro(a)</i>	‘look carefully, search for’
Pn:	Māori	<i>tiro</i>	‘look into, examine’

POc **tapu(s)*, **tapus-i-* ‘seek lice’

PT:	Motu	<i>tahu(a)</i>	‘seek, examine’
PT:	Gumawana	<i>tao</i>	‘look for lice’
SES:	Gela	<i>tavuhi</i>	‘seek, esp. lice in the hair’
SES:	Ghari	<i>tavu(a)</i>	‘scratch, look for lice’
SES:	Lau	<i>afui</i>	‘search a head for lice’
NCV:	Avava	<i>tap</i>	‘pick fruit’ (John Lynch, pers. comm.)
NCV:	Naman	<i>tov</i>	‘pick fruit’ (John Lynch, pers. comm.)

PROc **pakit*, **pakit-i-* ‘search hair for lice’

NCV:	Tamambo	<i>vahi</i>	‘groom hair, search head for lice’
NCV:	Nguna	<i>vāke</i>	‘search hair for lice’
Mic:	Woleaian	<i>faxiti</i>	‘search hair for lice’
Mic:	Mokilese	<i>pakit</i>	‘delouse’

3 Butterflies (Order Lepidoptera = ‘scaly wings’)

A number of formally similar reconstructions for butterfly have been made above the level of POc: PAn **(qali)-benbeŋ*, PMP **kali-mbembəŋ* and PSHWNG **kalə-mbombəŋ*. From the first-mentioned one would expect the regularly derived POc **kali-boboŋ*. It does appear, but its reflexes are with one exception limited to the North New Guinea subgroup. The most widespread Oceanic cognate set, yielding POc **(kau)bebek*, cannot be derived directly from PMP.

PAn **qali-benben* ‘butterfly’ (ACD)POc **[kali]bobo(ŋ)* ‘butterfly’

Adm: Loni	<i>pop^w(ilow)</i>	
NNG: Gedaged	<i>kilibob</i>	‘butterflies, a collective term’
NNG: Numbami	<i>kai^mbo^mbo</i>	
NNG: Bariai	<i>vovo</i>	
NNG: Kove	<i>vovo</i>	
NNG: Maleu	<i>na-lvovo</i>	
NNG: Tuam	<i>bobo(im)</i>	
NNG: Gitua	<i>bobo(koro)</i>	
NNG: Malalamai	<i>vovo</i>	
NNG: Sio	<i>bobo</i>	
NNG: Bing	<i>kalbob</i>	
NNG: Bilibil	<i>kilibob</i>	
NNG: Megiar	<i>kabob</i>	
NNG: Manam	<i>bo-bobe</i>	
NNG: Bam	<i>ba-bob</i>	
NNG: Wogeo	<i>bobo</i>	

POc **[kau]bebek* has reflexes throughout almost the entire Oceanic region apart from NNG. The added *-a* in Molima, Dobu, Sewa Bay, Duau, Bwaidoga and ’Auhelawa reflects a regular process, but the labialisation of **k* is unexpected.

POc **[kau]bebek* ‘butterfly, moth’

Adm: Lou	<i>pepe</i>	‘centipede’
Adm: Mussau	<i>kau-bebe</i>	‘butterfly’
PT: Molima	<i>pepe^ɔwa</i>	‘butterfly’
PT: Dobu	<i>pepek^wa</i>	‘butterfly’
PT: Sewa Bay	<i>pepek^wa</i>	‘butterfly’
PT: Duau	<i>pepek^wa</i>	‘butterfly’
PT: Bwaidoga	<i>bebewa</i>	‘butterfly’
PT: Gapapaiwa	<i>beba-beba</i>	‘butterfly’
PT: Ubir	<i>fefek</i>	‘butterfly’
PT: Hula	<i>pepe</i>	‘butterfly’
PT: Sinaugoro	<i>kau-bebe</i>	‘butterfly’
PT: Mekeo	<i>fefe</i>	‘butterfly’
PT: Motu	<i>kau-bebe</i>	‘butterfly, moth’
MM: Bali	<i>ka-bebeke</i>	‘butterfly’
MM: Nakanai	<i>bebe</i>	‘butterfly’
MM: Tolai	<i>bebe</i>	‘butterfly’
MM: Mono-Alu	<i>bebe</i>	‘butterfly’
SES: Lau	<i>bebe</i>	‘butterfly, moth’
SES: Sa’a	<i>pepe</i>	‘butterfly, moth’
SES: Arosi	<i>bebe</i>	‘butterfly (generic)’ (used as first element in compound terms for partic. varieties)
NCV: Mota	<i>pepe</i>	‘a yellow butterfly’

NCV:	Raga	<i>bebe</i>	‘generic for butterflies and moths’
NCV:	Lewo	<i>(le)pepe</i>	‘butterfly’
NCV:	S Efate	<i>(li)pep</i>	‘butterfly’
Mic:	Kiribati	<i>p^wep^we</i>	‘butterfly’
Mic:	Marshallese	<i>p^wap^wip^w</i>	‘butterfly, moth’
Fij:	Rotuman	<i>pepe</i>	‘moth or butterfly of any kind’
Fij:	Wayan	<i>bēbē</i>	‘butterflies and moths’
Fij:	Bauan	<i>bēbē</i>	‘butterfly’
Pn:	Tongan	<i>pepe</i>	‘butterfly’
Pn:	Pukapukan	<i>pepe</i>	‘dragonfly’
Pn:	Tikopia	<i>pepe</i>	‘butterfly, moth; gen. term for Lepidoptera’
Pn:	Māori	<i>pepe</i>	‘flutter, moth’
		<i>pepepe</i>	‘butterfly’

cf. also:

Mic:	Puluwatese	<i>(li)p^wekip^wek</i>	‘butterfly’ (<i>li-</i> ‘nominal prefix’)
Mic:	Woleaian	<i>(ri)ḑexiḑex</i>	‘butterfly, caterpillar’ (<i>ri-</i> ‘nominal prefix’)

One other reconstruction is restricted to Papuan Tip.

PPT **qara-bembem* ‘butterfly’

PT:	Ubir	<i>kara-bimbim</i>
PT:	Doga	<i>ara-bembem</i>
PT:	Anuki	<i>kara-bemem</i>
PT:	Are	<i>ara-bembemta</i>

In Western Oceanic, but with just two reflexes, I find—

PWOC **bebelo* ‘butterfly’

PT:	Lala	<i>ebebelo</i>
MM:	Torau	<i>bebelo</i>

—and in that part of MM which lies within the Northwest Solomons:

Proto NW Solomonic **pepele* ‘butterfly’

MM:	Ririo	<i>pepel</i>	
MM:	Sisiqa	<i>pe-pepele</i>	
MM:	Babatana	<i>pe-pepele</i>	
MM:	Nduke	<i>pepele</i>	‘general term for butterflies and moths’
MM:	Roviana	<i>pepele</i>	
MM:	Hoava	<i>pepele</i>	
MM:	Vangunu	<i>pepele</i>	

cf. also:

TM:	Teanu	<i>mebeli</i>
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What are we to make of these variations? Butterflies, like lice and flies, are commonplace, but whereas I have extremely stable cognate sets for the latter two, butterfly terms in

Western Oceanic have many slightly different forms. It is as if there is wordplay, with small changes being deliberately made to a word. Was there something culturally significant about butterflies, perhaps some trace of the supernatural that the *kali-* prefix reflects, that gave rise to some taboo about the use of the normal term? Although I have examples of an association between butterflies and the supernatural in Sa'a (Ivens 1927:187), Maori (Andrew Crowe pers. comm.) and Easter Island (Steven Roger Fischer pers. comm.) I have no comparable examples from Western Oceanic. Malcolm Ross (pers. comm.) suggests an explanation involving a different kind of cultural taboo.

There is a widespread origin legend along the New Guinea north coast based on the activities of two brothers, Manub (blue dove) and Kilibob (butterfly), who, between them, 'made their dwelling places, sun, moon and stars etc. and also the people, and gave them all their customs and usages' (Pech 1991:81). It happens that such legends may be seen to belong to particular clans in their traditional form. Others may continue the legends but lack the right to use traditional names (Pech 1991:116). If this were the case, it would be the names, rather than the creature, which were subject to some kind of taboo. It may have been some such reason that is the explanation for the numerous variations in the WOc butterfly term. The EOc terms, however, are quite consistent, all derived from one of the WOc variations, **bebek*, so evidently no longer subject to the same taboo pressures.

Although POc speakers evidently included moths and butterflies within one generic term, I have a lower-level reconstruction which is limited to moths, possibly a particular kind of moth. Samoan and Tikopia reflect **lele-fua* while the Central Eastern Polynesian languages appear to have added a prefix of unclear function.

PNPn **[pu]lele-fua* 'k.o. moth' (POLLEX: **lele* 'fly swiftly')

Pn:	Samoan	<i>lele-fua</i>	'moth'
Pn:	Tikopia	<i>rere-fue</i>	'large moth'
Pn:	Rarotongan	<i>purere-ʔua</i>	'large moth sp.'
Pn:	Tahitian	<i>pūre-hua</i>	'moth'
Pn:	Māori	<i>pūrere-hua</i>	'moth'
Pn:	Hawaiian	<i>pulele-hua</i>	'butterfly, moth'

4 Mosquitoes (Order Diptera = 'two wings': Family Culicidae)

A POc reconstruction for 'mosquito', **ñamuk*, is based on numerous cognates from all major subgroups, with little variation in meaning, together with a PMP antecedent. In some Papuan Tip languages reflexes form compounds to refer to a range of small flying biting insects. The PT reflexes have undergone a common sporadic vowel change, lowering of unstressed *-u* to *-o*.

A number of terms that refer to the mosquito have been reconstructed in addition to **ñamuk*.

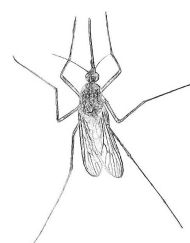


Figure 7.2 *Anopheles* sp., mosquito

PMP **ñamuk* ‘mosquito’ (Blust 2002)

POc **ñamuk* ‘mosquito’

Adm:	Aua	<i>namu</i>	‘mosquito’
Adm:	Seimat	<i>namu</i>	‘mosquito’
Adm:	Kaniet	<i>ñamu</i>	‘mosquito’
Adm:	Loniu	<i>ñamɔn</i>	‘mosquito’
NNG:	Lukep (Pono)	<i>nam</i>	‘mosquito’
NNG:	Kaiwa	<i>namuk</i>	‘mosquito’
NNG:	Manam	<i>nam</i>	‘mosquito’
PT:	Molima	<i>namo-namo</i>	‘fly’ (<i>namo-kili</i> ‘mosquito’, <i>namo-kodu-kodu</i> ‘k.o. sandfly’)
PT:	Bwaidoga	<i>nimoya</i>	‘mosquito’ (<i>namo-kili-kili</i> ‘fruit-fly’)
PT:	Maisin	<i>namoyi</i>	‘mosquito’
PT:	Minaveha	<i>namo-namo</i>	‘fly (generic)’ (<i>namo-kina</i> ‘mosquito’, <i>vivia namo-namo</i> ‘wasp, small red variety’)
PT:	Gapapaiwa	<i>namo-namo</i>	‘fly’ (<i>namo-kiri</i> ‘mosquito’)
PT:	Are	<i>namo-namo</i>	‘housefly’
PT:	Motu	<i>namo</i>	‘mosquito’
PT:	Sudest	<i>ñamo-ñamo</i>	‘fruitfly’
MM:	Nalik	<i>namu</i>	‘mosquito’
MM:	Nakanai	<i>lamo</i>	‘mosquito’
MM:	Tolai	<i>namu</i>	‘sandfly’
SES:	Bugotu	<i>ñamu</i>	‘mosquito’
SES:	Gela	<i>namu</i>	‘mosquito’
SES:	Kwaio	<i>namu-namu</i>	‘small flying insect (generic); sandfly, gnat’
SES:	Arosi	<i>[na]namu</i>	‘mosquito’
TM:	Buma	<i>muko</i>	‘mosquito’
NCV:	Mota	<i>namu</i>	‘mosquito’
NCV:	Raga	<i>namu</i>	‘generic for mosquitoes’
NCV:	Paamese	<i>a-namu</i>	‘mosquito’
NCV:	Nese	<i>namyo</i>	(regular metathesis of final *- <i>Vk</i>)
SV:	Sye	<i>yomoy</i>	‘mosquito’
SV:	Anejoñ	<i>n-yam^w</i>	‘mosquito’
NCal:	Nixumwak	<i>nabuc</i>	‘mosquito’
NCal:	Nemi	<i>naguk</i>	‘mosquito’
Mic:	Marshallese	<i>nam^w</i>	‘mosquito’
Mic:	Woleaian	<i>ram^wu</i>	‘mosquito’
Mic:	Ulithian	<i>lam^wo</i>	‘mosquito’
Fij:	Bauan	<i>namu</i>	‘mosquito’
Fij:	Wayan	<i>am</i>	‘mosquito’
Pn:	Tongan	<i>namu</i>	‘mosquito’
Pn:	Tahitian	<i>namu</i>	‘mosquito’
Pn:	Māori	<i>namu</i>	‘sandfly’

The following reconstruction shares the same second syllable as **ñamuk* ‘mosquito’. Both **ñamuk* and **simuk* evidently referred to ‘mosquito’ in WOc, although **simuk* may

have had a broader semantic range than **ñamuk*, its reflexes at times referring to other small biting flies. Southeast Solomonic terms reflect Proto SE Solomonic **simi* rather than †**simu*. (Maringe *si-simi* is evidently borrowed from a neighbouring SES language). Reflexes of **simuk* are not found in subgroups east of the Solomons.

POc **simuk* ‘mosquito, small biting fly’

NNG:	Tuam	<i>sum</i>	‘mosquito’
NNG:	Mato	<i>simak</i>	‘sandfly’
NNG:	Labu	<i>sumu(si)</i>	‘mosquito’
PT:	Wedau	<i>imo(kini)</i>	‘mosquito’ (<i>kini</i> ‘to sting’)
PT:	Tawala	<i>himo(kini)</i>	‘mosquito’
		<i>himo-himo(kini)</i>	‘sandfly’
PT:	Dawawa	<i>simo(kin)</i>	‘mosquito’
MM:	Mono-Alu	<i>simuʔu</i>	‘midge’
MM:	Varisi	<i>simu-simu</i>	‘midge’
MM:	Avasö	<i>simuku</i>	‘mosquito’
MM:	Maringe	<i>si-simi</i>	‘housefly’
SES:	Lau	<i>simi</i>	‘sandfly’
SES:	Baegu	<i>si-simi</i>	‘midge’
SES:	Longgu	<i>simi</i>	‘mosquito’
SES:	Kwai	<i>simi(sak^walo)</i>	‘mosquito’
SES:	Kwaio	<i>simi</i>	‘fly, sandfly’
		<i>simi(lak^walo)</i>	‘mosquito’
SES:	Dori’o	<i>simi(lak^walo)</i>	‘midge’
		<i>simi(ni-ōne)</i>	‘mosquito; sandfly’
SES:	’Are’are	<i>sime</i>	‘mosquito’
SES:	Sa’a	<i>sime</i>	‘mosquito’

Another term, POc **ma-kini(t)*, is also reconstructable, with reflexes that refer to ‘mosquito’ in Western Oceanic, but in Remote Oceanic rather to the state of being stung. As a literal translation of a form of the verb **kini-t*, ‘to pinch’, **ma-kini(t)* means ‘to get pinched’, i.e. ‘get stung’. The languages in which reflexes of **ma-kini(t)* are listed have all lost POc final consonants, and putative final **-t* is reconstructed on the basis of etymology. In languages such as (PT) Gumawana, the meaning of the verb *gini* includes ‘to puncture, spear, inject, sting’. Reflexes of **kini-t* appear frequently in PT languages as the second element in compound terms referring to biting insects. (See also POc **simuk* above.)

POc **ma-kini(t)* ‘mosquito’

NNG:	Bariai	<i>makin-kin</i>	‘mosquito’
NNG:	Kove	<i>makini-kini</i>	‘mosquito’
MM:	Nakanai	<i>makili-kili</i>	‘black gnats, sandflies’
MM:	Bali	<i>makini-kini</i>	‘mosquito’
MM:	Bulu	<i>makini-kini</i>	‘mosquito’

PROc **makini* ‘to be stung’

NCV:	Nguna	<i>makini-kini</i>	‘itchy’
Pn:	Samoan	<i>maʔini</i>	‘to sting, to smart’

Pn:	Tongan	<i>makini</i>	‘to have a pricking or tingling sensation like pins and needles’ (also <i>makini-kini</i> implying duration)
cf. also:			
Pn:	Tikopia	<i>kini-kini</i>	‘insect, small brown, predatory on man, in houses (? flea)’

A tendency to identify small buzzing and biting insects with nasal-initial terms and frequent reduplication is noted with **ñamuk* as well as POc **ñiñi(η)* and PWOC **ñati-ñati* below, and is apparent also in the terms for sandfly/midge/gnat in the following section (POc **niku-niku*, **nonok*, **ñi(s,j)i*). Most are onomatopaeic, using *n*, *ñ* and *η* almost interchangeably, making it difficult to trace cognate forms.

PMP **ñiñ* ‘buzz, hum’ (ACD)

POc **ñiñi(η)* (1) ‘buzz as a mosquito’, (2) ‘mosquito’ (onomatopoeic)

NNG:	Bing	<i>ñiñ</i>	‘mosquito’
SES:	Gela	<i>ñiñi</i>	‘buzz as a mosquito’
SES:	Talise	<i>ñi</i>	‘midge’
SES:	Birao	<i>ñi</i>	‘midge’
SES:	Tolo	<i>ñi</i>	‘mosquito’
Fij:	Bauan	<i>ñiñi</i>	‘buzz as a mosquito’

PWOC **ñati-ñati* ‘mosquito’

NNG:	Mapos Buang	<i>ñat-ñat</i>	‘mosquito’
PT:	Gapapaiwa	<i>nasi-nasi</i>	‘small brown fly’
MM:	Tabar	<i>ñati-ñati</i>	‘mosquito’
MM:	Lihir	<i>ñet-ñet</i>	‘mosquito’
MM:	Madak	<i>ñit</i>	‘mosquito’
MM:	Ramoaaina	<i>ñat-ñat</i>	‘sandfly’
MM:	Patpatar	<i>ñati-ñat</i>	‘mosquito’
MM:	Minigir	<i>ñati-ñati</i>	‘mosquito’
MM:	Tolai	<i>ñati-ñat</i>	‘mosquito’
MM:	Nehan	<i>nat-nat</i>	‘mosquito’

5 Sandflies, midges, gnats (Order Diptera: Families Chironomidae (non-biting), Ceratopogonidae, Psychodidae, Simuliidae (biting); Families Drosophilidae, Tephritidae (fruit flies))

Cognates in the following sets refer to a range of very small flying biting insects. Vagueness of identity may be due to the fact that speakers have no real need to distinguish these insects more precisely.

POc **niku-niku* from PMP **nik-nik* rather than the expected **ñinik* may simply be another example of the playful variation prevalent in some insect terms.

PMP **nik-nik*, **ñik-ñik* ‘tiny biting insect: gnat, sandfly, fruitfly’ (ACD)

POc **niku-niku* ‘small biting fly’

PT:	Bwaidoga	<i>niku-niku</i>	‘small fly that bites (like sandfly)’
MM:	Vitu	<i>niki</i>	‘mosquito’
MM:	Konomala	<i>nuk-nuk</i>	‘mosquito’
MM:	Tolai	<i>nuku-nuku</i>	‘very small fly’
MM:	Roviana	<i>niku-niku</i>	‘k.o. sandfly whose bite is painful’
MM:	Hoava	<i>niku-niku</i>	‘midge’
MM:	Vangunu	<i>niku-niku</i>	‘midge’

Polynesian reflexes of **nonok* ‘sandfly, midge’ appear to refer to fruitflies and perhaps other small non-biting flies. The Cristobal-Malaitan terms reflect PCM **nono(i)tasi*, literally ‘fly of salt water’.

PMP **nek-nek* ‘gnat, sandfly, fruit fly’ (ACD)

POc **nonok* ‘sandfly, midge’

Adm:	Lou	<i>(tip)non</i>	‘sandfly, mosquito’
Adm:	Baluan	<i>(liplip)non</i>	‘sandfly’
MM:	Mono-Alu	<i>nono</i>	‘mosquito’
MM:	Nduke	<i>nonoyo</i>	‘mosquito’
SES:	Gela	<i>nonoke</i>	‘ko. sandfly on the shore’
SES:	Baegu	<i>nono(āsi)</i>	‘sandfly’
SES:	’Are’are	<i>nono(asi)</i>	‘small stinging midge; gnat; sandfly’
SES:	Sa’a	<i>nono(asi)</i>	‘midge, gnat’
SES:	Arosi	<i>nono</i>	‘fly’
		<i>nono(iasi)</i>	‘sandfly’
		<i>(ʔarai)nono</i>	‘mosquito’ (<i>ʔaraʔi</i> ‘to bite, sting’)
SES:	Fagani	<i>nana(osi)</i>	‘sandfly’ (vowel metathesis)
NCV:	Mota	<i>nono</i>	‘a small beetle that comes on decaying fruit’
NCV:	Lewo	<i>ne-nono</i>	‘sandfly, midge, fruitfly’
NCV:	Uripiv	<i>nunu</i>	‘midge’
Pn:	Niuean	<i>nono</i>	‘small beetle’
Pn:	Tongan	<i>nono</i>	‘fruitfly’
Pn:	Rennellese	<i>nono</i>	‘k.o. small fly found on rotten bananas’
Pn:	Samoa	<i>nono</i>	‘white ant when winged’
Pn:	Tikopia	<i>nono</i>	‘fruitfly’
Pn:	Tuvalu	<i>nono</i>	‘small flying insect’
Pn:	E Uvean	<i>nono</i>	‘small flying insect’

The next reconstruction is reflected mainly in compound terms which include a range of unidentified elements.

POc **ŋi(s,j)i* ‘sandfly’

Adm:	Mussau	<i>(kala)ŋisi</i>	‘sandfly’
NNG:	Malai	<i>(maran)ŋis-ŋis</i>	‘sandfly’
NNG:	Lukep (Pono)	<i>(bara)ŋis-ŋis</i>	‘sandfly’

NNG:	Singorakai	(<i>mala</i>) <i>ŋis</i>	‘sandfly’
NNG:	Tami	<i>siŋi-siŋ</i>	‘firefly’ (metathesis)
NNG:	Wab	<i>ŋis</i>	‘sandfly’
NNG:	Bing	(<i>raman̄as</i>) <i>ŋis</i>	‘sandfly’
NNG:	Mindiri	(<i>bərɔ</i>) <i>ŋis</i>	‘sandfly’
NNG:	Manam	(<i>mara</i>) <i>ŋizi-ŋizi</i>	‘k.o. gnat, small’
SES:	W G’canal	<i>ŋiju</i>	‘sandfly’

PWOc **ki(r,R)i-ki(r,R)i* ‘sandfly’

PT:	Gapapaiwa	<i>kiri-kiri</i>
PT:	Ubir	<i>ire</i>
PT:	Dobu	(<i>dag^wa</i>) <i>kili-kili</i>
MM:	Maringe	<i>gri-gri</i>

6 Flies (Order Diptera: Families Muscidae (houseflies, bluebottles), Tabanidae (horseflies), Bibionidae (March flies))

6.1 Flies (generic); houseflies

Blust (2002) has reconstructed both PMP **lalej* ‘housefly’ and PMP **lan̄aw* ‘botfly, bluebottle’. The latter became in POc the generic term for flies, with reflexes often referring specifically to the common housefly.

Reflexes of POc **lan̄o* ‘fly’ are both numerous and widespread, occurring in all major subgroups. In a number of languages including Lou (Adm), Gela (SES) and Hawaiian (Pn), the term is used in compounds as first element, referring to a range of flies (housefly, blowfly, horsefly, March fly, bluebottle fly etc.).

PMP **lan̄aw* ‘botfly, bluebottle’ (Blust 2002)

POc **lan̄o* ‘fly’

Adm:	Mussau	<i>lan̄o</i>	‘housefly’
Adm:	Lou	<i>lan̄-lan̄(a)</i>	‘fly, flying insect’
		<i>lan̄(et)</i>	‘housefly’
		<i>lan̄-lan̄a-n palawa</i>	‘honey bee’
		<i>lan̄-lan̄ ŋara</i>	‘bluebottle, horsefly, March fly’
NNG:	Tami	<i>lan̄o-lan̄</i>	‘fly’
NNG:	Kove	<i>lan̄o-lan̄o</i>	‘fly’
		<i>lan̄o-vihi</i>	‘blowfly, big, blue, noisy, bites and stinks’
NNG:	Sengseng	<i>lan̄</i>	‘fly’
		<i>lan̄-i-yuyu</i>	‘hornet with papery nest’
		<i>lan̄-on̄on̄</i>	‘insect that makes holes in wood’
PT:	Motu	<i>lao</i>	‘fly’
PT:	Lala	<i>nalo</i>	‘k.o. fly’ (metathesis)
MM:	Tabar	<i>ran̄o</i>	‘fly’

MM:	Vitu	<i>laŋo</i>	'fly'
MM:	Nehan	<i>laŋo</i>	'fly'
SES:	Gela	<i>laŋo</i>	'fly (generic)' (first element in many binomial fly terms)
SES:	Sa'a	<i>laŋo</i>	'bluebottle fly'
SES:	Arosi	<i>raŋo</i>	'fly'
NCV:	Mota	<i>laŋo</i>	'bluebottle fly'
NCV:	Raga	<i>laŋo</i>	'generic for flies'
NCV:	Paamese	<i>a-laŋo</i>	'fly'
SV:	Sye	<i>(u)laŋ</i>	'a fly'
SV:	Lenakel	<i>(k)iaŋ</i>	'a fly'
SV:	SW Tanna	<i>(e)laŋ</i>	'a fly'
NCal:	Nemi	<i>nen</i>	'fly'
NCal:	Jawe	<i>nen</i>	'fly'
Mic:	Kiribati	<i>naŋo</i>	'fly, blowfly'
Mic:	Woleaian	<i>raŋo</i>	'fly'
Mic:	Sonsorolese	<i>rāŋo</i>	'fly'
Fij:	Rotuman	<i>laŋo</i>	'fly'
Fij:	Bauan	<i>laŋo</i>	'fly'
Pn:	Samoa	<i>laŋo</i>	'fly'
Pn:	Tikopia	<i>raŋo</i>	'fly'
Pn:	Māori	<i>raŋo</i>	'fly' (eastern dialect)
Pn:	Hawaiian	<i>nalo</i>	'common house fly' (metathesis). Used as first element in compounds for hornet, wasp, bee, bluebottle etc.)

6.2 Horseflies and March flies

Members of the horsefly and March fly families suck the blood of mammals, inflicting a painful bite. Few terms have been collected, and no reconstructions have been possible.

7 Dragonflies and damselflies (Order Odonata = 'flies with teeth')

Dragonflies and damselflies are arguably the most accomplished aerialists in the animal kingdom. Swift and agile, they can reverse direction in midair within one body length, hover with ease and fly backwards. They copulate in the air, typically over a body of fresh water, where the female lays her eggs. Although cognate sets have been elusive, a remarkable consistency of meaning has emerged in descriptive compounds meaning literally 'copulate' + 'water', from terms in SE New Britain to the Solomons to Fiji. Terms referring to copulation have evidently been replaced by euphemisms in many languages. Lack of cognacy in the

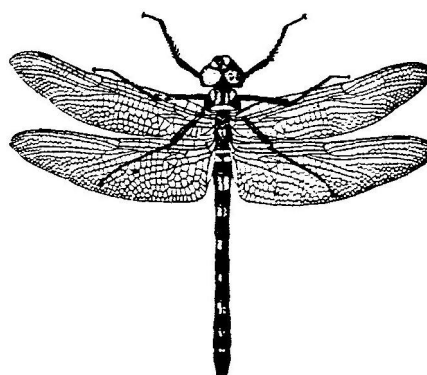


Figure 7.3 Dragonfly

terms for water is due to the tendency in some languages to generalise terms originally referring specifically to fresh water, rain, river, pond and so on. For instance, the second element in the Pendau (central Sulawesi) term for a dragonfly, *tuntu/rano*, translates literally as ‘lake’ (Phil Quick pers. comm.). POc **waiR* ‘water’ is attested in the two following (non-cognate) sets by terms from SES, NCV and Fiji.

NNG:	Poeng	<i>roro-me</i>	(<i>roro</i> ‘copulate’, <i>me</i> ‘water’)
SES:	Gela	<i>hita-hita-beti</i>	(<i>hito</i> ‘to cohabit’, <i>beti</i> ‘water, stream’)
SES:	Arosi	<i>?ani-wai</i>	(<i>?ani</i> ‘fornicate’, <i>wai</i> ‘water’)
Mic:	Chuukese	<i>nifēfēcon</i>	(‘the one that copulates with water’; Davis 1999)
Fij:	Wayan	<i>dulu-dulu-wai</i>	(<i>dulu</i> ‘copulate’, <i>wai</i> ‘water’)
Fij:	Bauan	<i>ḍai-ḍai-wai</i>	(<i>ḍai</i> ‘copulate’, <i>wai</i> ‘water’)

Other compounds retain the water connection, but vary the verbal concept.

PT:	Sudest	<i>wawa-e^mba</i>	(<i>wawa</i> ‘?’, <i>^mb^wa</i> ‘water’)
SES:	Gela	<i>gito-beti</i>	(‘steal water’)
SES:	Tolo	<i>ici-kolo</i>	(<i>ici</i> ‘?’, <i>kolo</i> ‘water’)
SES:	Lau	<i>nalu-kafo</i>	(‘scoop up water’)
		<i>tatara</i>	<i>kafo</i> (‘skim water’)
SES:	Longgu	<i>tatara-wai</i>	‘large dragonfly with tail like a helicopter’ (lit. ‘skim water’)
SES:	Sa’a	<i>tātara-wai</i>	(‘skim water’)
SES:	Arosi	<i>tātā-wai</i>	(‘skim water’)
SES:	’Are’are	<i>tatara-wa</i>	(‘skim water’)
NCV:	Mota	<i>roro-pei</i>	(<i>roro</i> ‘sink’, <i>pei</i> ‘water’)
NCV:	Paamese	<i>menmen-oai</i>	(<i>men-men</i> cf. <i>munmun</i> ‘drink’, <i>oai</i> ‘water’)
NCV:	SE Ambrym	<i>munmun-oi</i>	(‘drink water’)

Samoan retains the skimming element in *seʔe-mū* ‘dragonfly’ (*seʔe* ‘glide’, *mū* ‘flying insect’).

The Rennellese describe it as a sailing insect: *manu-manu hogau* (*hogau* ‘sailor, ocean voyager’).

There are isolated instances of dragonflies being used in sorcery, as a means of causing death in Kiribati (Rosemary Grimble 1972:26–27) and to facilitate theft in Tahiti (Henry 1971:391), but rather than reflecting something specific about the role of dragonflies in POc times, this is probably no more than an indication that certain insects were commonly regarded as agents of the gods and spirits.

8 Bees (Order Hymenoptera = ‘membrane wings’: Super Family Apoidea)

The following reconstruction rests on a pair of cognates from different primary subgroups.

POc **kororo* ‘bee’

Adm:	Lou	<i>koror</i>	‘bee (generic)’
MM:	Teop	<i>kororo</i>	‘honey-bee/honey/(ear wax)’

cf. also:

PT: Sinaugoro *kororo* 'cricket'

Although the following reconstruction bears some resemblance to PMP **(n, ñ)ik-(n, ñ)ik*, 'tiny biting insect: gnat, sandfly, fruitfly' (§5), it is lacking a final consonant and may simply have been generated independently on onomatopoeic grounds. The initial *ŋ-* of the Lau and Sa'a cognates is a common variation on *n-* and *ñ-* that occurs in terms for buzzing insects.

POc **(n, ñ)i(n, ñ)i* 'bee, buzzing insect'

Adm:	Seimat	<i>nini</i>	'bee'
NNG:	Kela	<i>nini</i>	'mosquito'
NNG:	Sio	<i>ni</i>	'mosquito'
NNG:	Labu	<i>nene</i> (^ŋ <i>g^wa</i>)	'fly (insect)'
NNG:	Takia	<i>nini</i>	'bee, wasp (generic)'
SES:	'Are'are	<i>nini(sua)</i>	'a bee which makes its nest in the ground and in trees' (<i>sua</i> 'to burrow')
SES:	Lau	<i>ŋiŋi(dua)</i>	'bee'
SES:	Sa'a	<i>ŋiŋi(due)</i>	'native bee'

9 Wasps (Order Hymenoptera): Families Ichneumonidae, Vespidae (paper wasp), Sphecidae (mud-dauber wasp, mason wasp)

I have been unable to identify a particular species that can be identified by POc **pupuk*. It may be a name given to any wasp-like insect that infests wood.

PMP **bukbuk* 'weevil that infests wood, bamboo, and rice; dust produced by the boring of this insect; tooth decay, dental caries' (ACD)⁵

POc **pupuk* 'k.o. borer wasp or bee that infests wood and bamboo'

NNG:	Gedaged	<i>fuf</i>	'wood-borer'
PT:	Sudest	<i>vuvu</i>	'sugarcane borer'
PT:	Gapapaiwa	<i>vuvua</i>	'bee type; carpenter bee'
PT:	Molima	<i>wuwuwuwa</i>	'borer wasp'
MM:	Patpatar	<i>huh</i>	'borer insect; wood that has been bored by wood-borers'
MM:	Nakanai	<i>vuvu</i>	'wasp and wasp-like insects'
MM:	Tolai	<i>pupuka</i>	'weevil; dust from weevil-eaten bamboos in house roof'
MM:	Nduke	<i>vuvu</i>	'black insect that eats wood'
MM:	Maringe	<i>fufu</i>	'bamboo borer'
SES:	Gela	<i>vuvu</i>	'a worm that bores into wood'
SES:	Bugotu	<i>vūvū</i>	'mason wasp'
SES:	Tolo	<i>vuvu</i>	'k.o. wasp which bores through wood'

⁵ For discussion of tooth decay perceived to be caused by a burrowing worm see §22.1.

SES:	Longgu	<i>vuvu(i)</i>	‘a type of black wasp, digs in the ground, painful if it stings you’
SES:	Lau	<i>fufu</i>	‘mason wasp’
Pn:	Niuean	<i>(lano) fufu</i>	‘mason wasp’
Pn:	Tahitian	<i>huhu</i>	‘xylocope or carpenter bee, large Hymenopterous insect, black, attacks wood’
Pn:	Māori	<i>huhu</i>	‘larva of beetle sp., edible grub’
Pn:	Hawaiian	<i>huhu</i>	‘wood-boring insect, worm-eaten’
Pn:	Marquesan	<i>huhu</i>	‘white wood-eating worm’
cf. also:			
PT:	Minaveha	<i>vuvu(ha)</i>	‘bee, small black variety that bores holes in wood’
MM:	Nakanai	<i>vuvu(li)</i>	‘k.o. stinging worm which is painful’ (reflects †* <i>pupuni</i>)
MM:	Roviana	<i>vuvu(nu)</i>	‘wood-eating worm’ (reflects * <i>pupun</i> rather than * <i>pupuk</i>)
NCV:	Raga	<i>huhu (gai)</i>	‘generic for wood-boring beetle larvae’ (expect <i>vuvu</i>)
		<i>huhu (lua)</i>	‘bee or wasp, hairy body, large head, painful sting’

The next reconstruction, POc **bubu* ‘k.o. wasp’, may simply be a variant of POc **pupuk*.

POc **bubu* ‘k.o. wasp’

NNG:	Adzera	<i>(wa)^mpup</i>	‘hornet’
NNG:	Kove	<i>vuvuvu</i>	‘wasp, kills spiders’
PT:	Motu	<i>bubu</i>	‘an insect like a wild bee that destroys timber’
PT:	Lala	<i>bubu</i>	‘hole-borer wasp’
MM:	Roviana	<i>bubu</i>	‘Buzzer wasp (<i>Odynerus superbum</i>)’
MM:	Nduke	<i>bubu</i>	‘black wasp, lives in the ground’
MM:	Mono-Alu	<i>(si)bubū</i>	‘wasp’
SES:	Sa’a	<i>pū</i>	‘mason bee, wasp’
SES:	’Are’are	<i>pū</i>	‘wasp’
cf. also:			
NNG:	Gitua	<i>bubu(la)</i>	‘housefly, mosquito’
SES:	Sa’a	<i>pupu(oro)</i>	‘an insect which digs up the ground and leaves a track’ (<i>oro</i> ‘stoop down’)
SES:	Arosi	<i>buburu(m^wago)</i>	‘mason bee, v large variety’ (<i>m^wago</i> ‘earth, soil, brown?’). Also <i>tatora m^wago</i> ‘mason bee’)
		<i>buburu(atoā)</i>	‘k.o. cricket’ (<i>atoā</i> ‘noon’)
Pn:	Tikopia	<i>pupu(matau)</i>	‘dragonfly’ (trad. embodiment of spirit) (<i>matau</i> ‘fishhook’?)

I am unable to account for the existence of two very similar POc reconstructions for ‘wasp’, **mañipo* and *(*n, ñ*)(*i(n, ñ)*)*ipo*, although presumably they are contrasted with **pupuk*/ **bubu*. Nor can they be divided according to their subgroups; reflexes of both appear in the Admiralties and in the Southeast Solomons. Wandamen (SHWNG) *anibar* ‘wasp/bee’ may be a non-Oceanic cognate. A third group reflects Proto Central Papuan **naniyo*. It seems that

here we have yet another example of wordplay. It is difficult to know whether the resemblance between **(n, ñ)i(n, ñ)ipo* ‘wasp’ below and **(n, ñ)i(n, ñ)i* ‘bee, buzzing insect’ (§8) arose by chance or reflects common ancestry in some way.

POc **mañipo* ‘k.o. wasp’

Adm:	Loniū	<i>menih</i>	‘large black bee; k.o. deep water seaweed which stings’ (exp <i>meñipo</i>)
PT:	Iduna	<i>manibo</i>	‘blue insect, perhaps k.o. mud wasp’
SES:	Bugotu	<i>mañivo</i>	‘wasp’
SES:	Tolo	<i>manivo</i>	‘wasp’
SES:	Lengo	<i>manivo</i>	‘wasp’
SES:	Arosi	<i>ma-maniho</i>	‘hornet’

cf. also:

NNG:	Yabem	<i>bani?</i>	‘generic for wasps, hornets’
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POc **(n, ñ)i(n, ñ)ipo* ‘k.o. wasp’

Adm:	Drehet	<i>ninih</i>	
SES:	Longgu	<i>ninivoi</i>	
SES:	Sa’a	<i>niniho</i>	‘hornet’

cf. also:

NNG:	Manam	<i>niniko</i>	‘wasp’
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Proto Central Papuan **naniyo* ‘wasp’

PT:	Sinaugoro	<i>naniyo</i>	‘small black and red wasp’
PT:	Motu	<i>naniyo</i>	‘k.o. <i>manu manu</i> : hornet’
PT:	Lala	<i>nani?o</i>	‘wasp’

In the next set we find the same lowering of an unstressed vowel from /-u/ to /-o/ in Papuan Tip languages that was noted in reflexes of POc **ñamuk* (§4).

PWOc **gumu* ‘k.o. wasp’

PT:	Dobu	<i>gumo</i>	‘paper wasp’
PT:	Saliba	<i>gumo</i>	‘wasp, bee’
PT:	Muyuw	<i>gum</i>	‘wasp, hornet’
PT:	Molima	<i>gumo</i>	‘wasp’
PT:	Tawala	<i>gumo</i>	‘wasp’
PT:	Nimoa	<i>gumo</i>	‘black wasp’
MM:	Maringe	<i>gu-yumhu</i>	‘mud wasp’

10 Ants (Order Hymenoptera: Family Formicidae)

Although sources for a number of languages give a term for ants in general, I cannot reconstruct a POc generic. It is likely that the dominant ant species varies from place to place, and that the term for that species has become the generic term in that area. In Yabem (NNG), for

instance, the generic term is *lêsê?*, in Sudest (PT) it is *vwara-vwara*, in Vitu (MM) *duri-duri*, and in Kwaio (SES), *ta-galo*. In Wayan Fijian *kadi* (from POc **kadi* ‘stinging black ant’) has become the generic. In Niue and Tonga, *lō* (from POc **loRo* ‘large red stinging ant’) is the generic form. However, a number of POc reconstructions can be made for ant taxa.

POc **kadi* ‘stinging black ant’

Adm:	Nyindrou	<i>karak</i>	‘ant’ (Tryon 1995)
NNG:	Kaulong	<i>keh-keh</i>	‘(?) (red) ant’
MM:	Bulu	<i>kadi</i>	‘stinging black ant’
MM:	Tolai	<i>kādik</i>	‘black ant’ (<i>kārəkum</i> ‘large red ant’)
MM:	Nehan	<i>kadik</i>	‘tree ant’
MM:	Simbo	<i>kadiki</i>	‘black ant’
SES:	Gela	<i>yadi</i>	‘k.o. black ant, bulldog ant’
SES:	Lengo	<i>yadi</i>	‘black ant’
SES:	Longgu	<i>hadi</i>	‘black ant that bites’ (possibly a borrowing from Malango)
SES:	Lau	<i>kadi</i>	‘bulldog ant’
SES:	Kwaio	<i>(kā)kadi</i>	‘stinging black ant’
NCV:	Mwotlap	<i>yen</i>	‘big stinging black ant’
NCV:	Nguna	<i>kādi</i>	‘black biting ant’
NCV:	NE Ambae	<i>gadi</i>	‘fire ant’
NCV:	Nese	<i>na-yajye</i>	‘fire ant’ (regular final <i>*/k</i> metathesis)
SV:	Ura	<i>(w)asek</i>	‘small stinging black ant’
SV:	Lenakel	<i>kasək</i>	‘soldier ant’
SV:	Anejoñ	<i>n-yas</i>	‘fire ant’
Mic:	Woleaian	<i>(u)xeši</i>	‘k.o. black ant’
Mic:	Carolinian	<i>(wu)xeš</i>	‘large black ant with a painful stinging bite, makes its nest near rotting trees’
Mic:	Kosraean	<i>kaš(kin)</i>	‘k.o. ant’
Mic:	Ponapean	<i>kāç</i>	‘ant’
Fij:	Wayan	<i>kadi</i>	‘generic for ants; large ants’
Fij:	Bauan	<i>kadi</i>	‘large black ant, stings’

Rufus Pech refers to the stinging red ant of the north New Guinea coast (*lol* in Tami) in the following way: ‘This is perhaps the most enterprising and obviously ubiquitous species of ant in the Melanesian lowlands. They build huge nests in trees by drawing and sticking together bunches of leaves, are carnivorous, and defend their territory ferociously.’ (Pech 1991:91). POc **loRo* probably referred to this group of ants although witnesses in Eastern Oceanic have a wider range of reference.

PMP **loRo* ‘red tree ant’⁶

POc **loRo* ‘large stinging red ant’

Adm:	Mussau	<i>loa</i>	‘red tree ant’
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⁶ The reconstruction of PMP **loRo* is based on comparison of the Oceanic reflexes with a WMP term, Pendaui *lō* ‘big red tree ant’ (Phil Quick, pers. comm.).

NNG:	Tami	<i>lol</i>	‘stinging red ant’
MM:	Vitu	<i>loro</i>	‘large red stinging ant’
MM:	Nakanai	<i>lolo</i>	‘large red ant’
MM:	Tabar	<i>ror</i>	‘red ants’
MM:	Tangga	<i>lo</i>	‘large sugar ants’
SES:	Gela	<i>lolo</i>	‘small black ant’
SES:	Longgu	<i>lolo</i>	‘a small ant’
SES:	Lau	<i>lolo</i>	‘k.o. ant’
SES:	Kwaio	<i>lolo</i>	‘ant’
SES:	Sa’a	<i>lolo</i>	‘red sugar ant’
Fij:	Rotuman	<i>roro</i>	‘fruit fly’
Fij:	Bauan	<i>lō</i>	‘small black ant’
		<i>lolo</i>	‘small ant’
Pn:	Niuean	<i>lō</i>	‘ant (generic)’
Pn:	Tongan	<i>lō</i>	‘ant (generic)’: kinds: <i>lō hina</i> (white ant), <i>lō kula</i> (red ant?), <i>lō ʔuli</i> (black), <i>lōʔata</i> (see below)
Pn:	Tikopia	<i>ro</i>	‘ant, of various kinds’
Pn:	Tahitian	<i>rō</i>	‘ant’
Pn:	Māori	<i>rō</i>	‘ant, stick insect, mantis’
Pn:	Hawaiian	<i>lō</i>	‘black insect, earwig’
cf. also:			
Adm:	Lou	<i>lolē</i>	‘small black sugar ant’

The next set is possibly a compound form of the above.

PPn **lō-qata* ‘large ant’ (PPn **qata* ‘image, likeness’)

Pn:	Tongan	<i>lōʔata</i>	‘k.o. black ant w painful bite’
Pn:	Samoa	<i>lōata</i>	‘k.o. large black ant’
Pn:	Nanumea	<i>loata</i>	‘large ant’

The three reconstructions which follow, POc **druī* ‘ant’, POc **[driu]driu* ‘small red or brown ants’ and PWoc **didi* ‘small ant’ may all be variants of the same etymon.

POc **druī* ‘ant’

MM:	Kandas	<i>dui-dui</i>	‘centipede’
MM:	Siar	<i>dui</i>	‘centipede’
MM:	Simbo	<i>dui</i>	‘ant’ (any ant?)
MM:	Nduke	<i>dui</i>	‘small black ant, found in gardens’
MM:	Roviana	<i>dui</i>	‘small ant’
SES:	Tolo	<i>(koko)dui</i>	‘reddish-brown ant’
SES:	Ghari	<i>dui-dui</i>	‘grey middle-sized ant’
SES:	Lau	<i>dudui</i>	‘k.o. large yellow ant in trees’
SES:	Kwaio	<i>dui-dui</i>	‘vinegar ant’
SES:	To’aba’ita	<i>dūdui</i>	‘fairly big reddish ant, stings’
NCV:	Nokuku	<i>ʔuʔui</i>	‘ant’
NCV:	Nduindui	<i>dui-dui</i>	‘ant’

cf. also:

MM: Vitu *duri-duri* ‘generic for ants’

POc *[driu]driu ‘small red or brown ants’

MM:	Sursurunga	<i>diu</i>	‘centipede’
SES:	Arosi	<i>diu-diu, di-diu</i>	‘k.o. small brown ant’
NCV:	Mota	<i>ni-niu</i>	‘small red ant’
NCV:	NE Ambae	<i>di-diu</i>	‘ant’
NCV:	Tangoa	<i>ri-riu</i>	‘red ant’
NCV:	Tamambo	<i>diu-diu</i>	‘small sugar ants; general term for red and brown ants, just a nuisance with food’
Fij:	Wayan	<i>(kā)driu-driu</i>	‘very small ants’

Given that all terms in the following set except Nduke are binomials, **didi* may have been a generic for ‘ant’.

PWOC **didi* ‘small ant’

NNG:	Labu	<i>titi(nalo)</i>	‘ant’ (<i>nalo</i> ‘small’)
PT:	Dobu	<i>didi(yauyau)</i>	‘ant’ (<i>yau</i> ‘number, to increase in number’)
PT:	Sinaugoro	<i>didi(rima)</i>	‘small black ants’
		<i>riri(ka)</i>	‘sugar ants’
MM:	Tolai	<i>(kara)didi</i>	‘larvae of the red ant, used as food’
MM:	Nduke	<i>didi</i>	‘wood-borer’

The next set consists of possibly related items, but there are too many irregularities to permit a POc reconstruction.

NNG: Vehes	<i>kakak</i>	‘ant’
NNG: Mapos Buang	<i>kakok</i>	‘ant’
NNG: Mumeng (Kumaru)	<i>kakok</i>	‘ant’
NNG: Mumeng (Patep)	<i>kekeak</i>	‘ant’
NNG: Mumeng (Zenag)	<i>kkewa</i>	‘ant’
MM: Tolai	<i>kakakau</i>	‘small black ant’
SES: Arosi	<i>ʔaʔaki</i>	‘large black ant, bulldog ant, w painful bite’

Although the following terms for ‘ant’ appear to be related (reflecting POC **kal(a,o)*), all except Marshallese carry additional unrelated morphemes which cannot be accounted for.

Adm:	Loniu	<i>kalɔ(n)</i>	‘ant’
PT:	Saliba	<i>kalakala-p^wasip^wasi</i>	‘black ants’
MM:	Teop	<i>ano(hi)</i>	‘ant’
SES:	’Are’are	<i>(ta)karo</i>	‘small black ant’
NCV:	Nguna	<i>(ma)kāla</i>	‘red ant’
Mic:	Marshallese	<i>kal(lep)</i>	‘big black ant’ (<i>lep</i> ‘big’)

cf. also:

NNG: Manam *kala(poaki)* ‘k.o. red ant’

NCV:	Mota	<i>kalo</i>	‘crawl, creep’
SV:	Lenakel	<i>(ma)kal</i>	‘large brown spider’

11 Termites (Order Isoptera = ‘equal wings’)

POc **ane* is well-supported as a term for ‘termite/white ant’. There are occasional mentions of an association of white ants with the supernatural in SES languages. In Arosi *ane-hau* refers to ‘k.o. white ant that lives in the ground; these ants were thought to be incarnations of the dead’, while in Sa’a they are ‘the food of ghosts on Malapa’. However, they would have been regarded as pests, and it is not surprising that we have no record of their ever being referred to by a **kali-* term.

PAn **SayaN* ‘white ant, termite’ (Blust 2002)

PMP **anay* ‘termite’ (metathesis) (Blust 2002)

POc **ane* ‘termite’

Adm:	Mussau	<i>āne</i>	‘termite’
Adm:	Pak	<i>ān</i>	‘termite’
Adm:	Lou	<i>(ŋ)an</i>	‘termite’
Adm:	Loniu	<i>an</i>	‘termite’
PT:	Saliba	<i>yane</i>	‘termite’
SES:	Bugotu	<i>ane</i>	‘termite’
SES:	Gela	<i>ane</i>	‘termite’
SES:	Lau	<i>sane</i>	‘termite’
SES:	’Are’are	<i>sane</i>	‘termite’
SES:	Sa’a	<i>sane</i>	‘termite’
SES:	Arosi	<i>ane</i>	‘white ant which bores and destroys’
		<i>ane(?ara)</i>	‘k.o. white ant found in coconuts’
		<i>ane(hau)</i>	‘k.o. white ant that lives in the ground; name for its nest’
		<i>ane(niragui)</i>	‘white ant, common wood-boring’
		<i>ane(wado)</i>	‘white ant, large’
Mic:	Carolinian	<i>anay</i>	‘termite; to be infested with termites’
Fij:	Bauan	<i>yane</i>	‘k.o. moth’
Pn:	Tongan	<i>ane</i>	‘moth, or more strictly, its larva, that eats holes in clothes etc. Also applied to silverfish’
Pn:	Samoaan	<i>ane</i>	‘termite, k.o. white ant’
Pn:	Tikopia	<i>ane</i>	‘termite’
Pn:	Rarotongan	<i>ane</i>	‘termite’

12 Crickets, grasshoppers (Order Orthoptera = ‘straight wings’); Cicadas (Order Hemiptera = ‘half wings’)

If a generic term existed in POC, either for grasshoppers, or for grasshoppers + crickets + cicadas (+ mantises), I have not been able to reconstruct it. Although I have a number of reconstructions, their reflexes show considerable variation in gloss. Some terms refer to ‘singing insect’, which may indicate either cricket or cicada. Lack of agreement in glosses may reflect indifference among speakers, although I would expect a generic term if particular varieties were not seen as important. Some languages have simply adopted verb forms for ‘grasshopper’—etymons from Kove (*piti-piti* ‘jumping insect found in beach rubbish’ and Raga (*visi[ribi]* ‘taro plant hopper’) are from POC **pitik* ‘spring up suddenly’/ POC **pitik-pitik* ‘jump repeatedly’. In Dobu crickets are named *kelei ʔana toeʔita*, literally ‘wallaby’s teacher’ (Ralph Lawton, pers. comm.). A grasshopper named *kokoru-bote* in Arosi is remarkable for the use found for it. It is described as ‘a large grasshopper, put on one’s head to eat lice’ (from *koru* ‘eat’, *bote* ‘lice’). Together with mantises and stick insects, grasshoppers and crickets are valued as food. Kwaio has a term, *faʔafulu* glossed as ‘generic term for edible insects, incl. grasshoppers, stick insects etc.’ Their appeal would no doubt be as a kind of snack food, a chance variation on their regular diet.

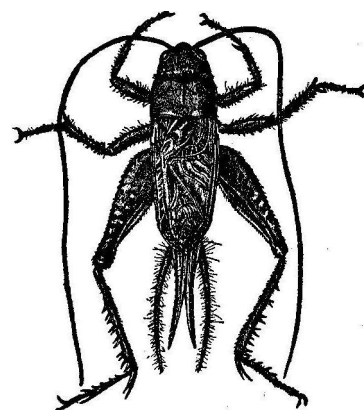


Figure 7.4 *Gryllus* sp., cricket

POC **sisi(rR)* ‘orthopterous insect’

NNG:	Mengen (Poeng)	<i>sisi</i>	‘grasshopper’
NNG:	Lukep (Pono)	<i>sis</i>	‘grasshopper’
NNG:	Kaulong	<i>u-sis</i>	‘grasshopper’
NNG:	Sengseng	<i>e-sis</i>	‘grasshopper’
NNG:	Gedaged	<i>sis</i>	‘grasshopper, locust’
PT:	Iduna	<i>sili(fa)</i>	‘k.o. small grasshopper’
MM:	Tangga	<i>sisi</i>	‘cicada’
MM:	Nehan	<i>sir-siri(alum)</i>	‘cricket’
MM:	Nduke	<i>hiri-ri</i>	‘k.o. cicada’
MM:	Roviana	<i>sisiri</i>	‘k.o. cicada (<i>Diceropyga obtecta</i>)’
SES:	Kwara’ae	<i>sīsī</i>	‘generic for beetles and insects’
SES:	To’aba’ita	<i>sīsī</i>	‘generic for beetles and fireflies’
NCV:	Nese	<i>sis</i>	‘chirp, of cicada’

cf. also:

MM:	Tolai	<i>titi(tij)</i>	‘k.o. small locust’
NCV:	Mwotlap	<i>titi(key)</i>	‘grasshopper’

Any resemblance between POC **riŋa* and PROc **liŋo-liŋo* is probably fortuituous.

POC **riŋa* ‘orthopterous insect’

Adm:	Drehet	<i>riŋ</i>	‘cricket’
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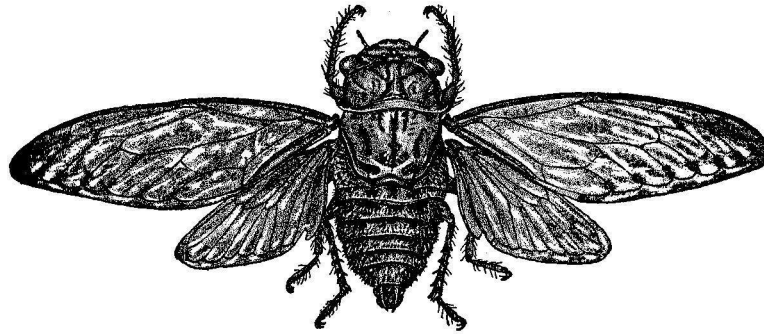


Figure 7.5 Cicada

PT:	Molima	<i>lia</i>	‘cicada’
MM:	Nehan	<i>(kaka)riŋ</i>	‘grasshopper’

POc **liŋo-liŋo* ‘night insect, probably a cricket’

Mic:	Kiribati	<i>niŋo-niŋo</i>	‘an insect which chirps at night’
Fij:	Bauan	<i>liŋo-liŋo</i>	‘night insect, esp. k.o. moth’
Pn:	Tongan	<i>liŋo-liŋo</i>	‘k.o. cricket’
Pn:	Samoa	<i>liŋo-liŋo</i>	‘cicada, sings in daytime. <i>ʔālisi</i> sings at night’ (Stair 1983:207)
Pn:	Tikopia	<i>riŋo-riŋo</i>	‘cricket (Gryllidae). Rarely seen’

POc **siko* ‘grasshopper’

MM:	Tabar	<i>ciko</i>	‘grasshopper’
SES:	Lau	<i>siko</i>	‘grasshopper’
SES:	Kwara’ae	<i>siko</i>	‘grasshopper’ (Whitmore 1966)
SES:	To’aba’ita	<i>siko</i>	‘generic for a class of insects that includes locusts, grasshoppers, stick insects, mantises, cicadas’
NCV:	Nese	<i>(narra)syo</i>	‘grasshopper’ (<i>narra</i> ‘?’)

POc **sak^wa* ‘grasshopper or stick insect’

NNG:	Gedaged	<i>sok(sok)</i>	‘stick insect’
NNG:	Takia	<i>sok</i>	‘large insect, prickly, with six legs, eaten’
PT:	Molima	<i>saga-saga</i>	‘green mantis (eaten)’
MM:	Kara (East)	<i>saywa</i>	‘grasshopper’ (reflects <i>*saqa</i>)
Mic:	Carolinian	<i>tāxa</i>	‘grasshopper’

The next term, POc **lale* ‘cicada’, is based on external evidence plus reflexes from two closely related languages. It remains an uncertain reconstruction.

PAn **lalay* ‘cicada’ (Blust 2002)

POc **l(a,e)le* ‘cicada’

PT:	Molima	<i>lele</i>	‘a mountain insect with very attractive cry’
PT:	Dobu	<i>lele</i>	‘cicada’

The next reconstruction is reliable in form only at PEOc level, and there is little consistency of gloss even within Polynesian languages.

PEOc **(s,j)eqe* ‘grasshopper?’

SES:	Bugotu	<i>se-se</i>	‘grasshopper’
Fij:	Rotuman	<i>jei</i>	‘cricket’

PPn **seqe* ‘insect spp. including mantis, stick insect, locust’

Pn:	Tongan	<i>heʔe</i>	‘locust, grasshopper’
Pn:	Niuean	<i>hē</i>	‘grasshopper, locust’
Pn:	Rennellese	<i>seʔe</i>	‘k.o. small cricket’
Pn:	Samoaan	<i>sē</i>	‘stick insect’
Pn:	Tikopia	<i>sē</i>	‘stick insect; mantis’
Pn:	Tokelauan	<i>hē</i>	‘locust, grasshopper’

John Lynch (pers. comm.) notes a number of NCV forms for ‘cicada’ (Mota *pūŋa*, Naman *bəgale*, Neve’ei *na/bugali*, Tape *bəŋale*, Paamese *ha/vuŋalii*), and Namakir *biŋaleh* ‘cricket’ which support PNCV **bu(g,ŋ)alis(V)*. This in turn suggests a possible relationship with the following PPn reconstruction, **kālisi*.

PPn **kālisi* ‘cicada, cricket’

Pn:	Tongan	<i>kālihi</i>	‘k.o. cricket’
Pn:	Samoaan	<i>ʔālisi</i>	‘cicada, cricket (night insects)’
Pn:	Ifira-Mele	<i>karisi</i>	‘cicada’

PPn **wāwā* ‘orthopterous insect’

Pn:	Niuean	<i>vā</i>	‘insect sp.’
Pn:	Rarotongan	<i>vāvā</i>	‘cricket’
Pn:	Tongarevan	<i>vāvā</i>	‘grasshopper, cricket’
Pn:	Mangarevan	<i>vāvā</i>	‘insect sp.’
Pn:	Tahitian	<i>vāvā</i>	‘praying mantis, stick insect’
Pn:	Tuamotuan	<i>vāvā</i>	‘grasshopper, stick insect’

13 Mantises (Order Mantodea = ‘like a prophet’), stick insects (Order Phasmatodea = ‘like a ghost’)

Although there is some confusion of gloss within cognate sets, it seems clear that POc speakers distinguished praying mantises (**papa*) from stick insects (**mimis-mata*). The ability to

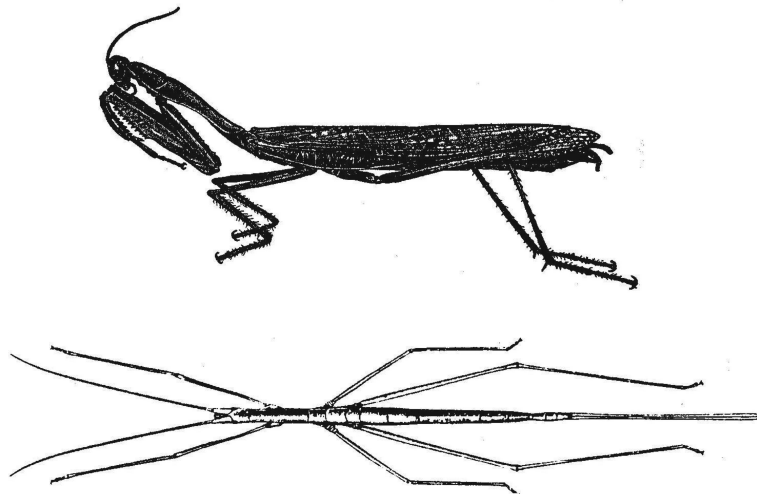


Figure 7.6 Above Praying mantis. Below Stick insect.

project a milky chemical painful to the skin which is reflected in POc **mimis-mata* is a defensive mechanism of at least some stick insects (Serkan Alasya, CSIRO Entomology, pers. comm.).

PMP **(kali)papa* ‘praying mantis, grasshopper’⁷

POc **papa* ‘praying mantis’

MM: Tolai	<i>pap</i>	‘praying mantis’
MM: Roviana	<i>papa(maho)</i>	‘praying mantis’ also <i>ma/maho</i> ‘green mantis’
MM: Nehan	<i>popo(hoso)</i>	‘walking stick insect’

POc **mimis-mata*, literally ‘urinate’ + ‘eye’, reflects awareness that the stick insect can eject a fluid which causes pain if it touches the eye. One of the better-known Phasmatodea of the Oceanic region is *Megacrania batesii*, the pandanus stick insect.

POc **mimis-mata* ‘stick insect’

MM: Roviana	<i>mimi-mata</i>	‘walking-stick insect which ejects a fluid said to cause intense pain should it touch the eye’
NCV: Raga	<i>me-merehi-mata</i>	‘praying mantis’ (lit. ‘urinate on eye’)
Fij: Wayan	<i>mīmī-mata</i>	(1) ‘praying mantis’, (2) ‘stick insect (generic)’ (lit. ‘urinate in eye’)

cf. also:

PT: Molima	<i>mata-se?a-se?a</i>	‘large poisonous beetle’ (<i>se?ai</i> or <i>sei?a</i> ‘to squirt poison, as a millipede’) (lit. ‘squirt in eye?’)
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Closely related to stick insects are leaf insects. The only terms I have located are descriptive compounds: Tawala (PT) *hiaga luguna* (*hiaga* ‘?’, *lugu* ‘leaf’), Tongan *moko-moko*

⁷ The reconstruction of PMP **(kali)papa* is based on comparison of the Oceanic reflexes with a WMP term, Pendaui *ali papā* ‘grasshopper, praying mantis’ (Phil Quick, pers. comm.).

tuʔaniu (*moko-moko* ‘crawling insect, *tuʔaniu* ‘midrib of coconut leaflet’), and Rennellese *manu gaukei* (‘insect’ + ‘leaf’).

Some varieties of mantis and stick insect are listed as edible in a number of languages.

14 Fireflies (Order Coleoptera = ‘sheath wings’: Family Lampyridae)

Judging from ethnographic references and brief elaborations in wordlists, it is fireflies, among all the insects of the Oceanic world, which are most associated with supernatural qualities. For Takia (NNG) speakers, a firefly, *lutot*, is thought to be a messenger of someone’s death (Bugenhagen wordlist). The term for a firefly in Sissano (NNG), *mas eyiaw*, is a compound term, *mas* being defined as ‘devil; spirit of dead relative’ and *eyiaw* as ‘evil spirit; thief’ (Whitacre wordlist). Seligmann quotes a report from Bartle Bay (Wedau, PT) that ‘if a firefly enters a house at night, it is a sign that someone in the house will die.’ (1910:653). Molima (PT) speakers regard fireflies as emissaries of witches who enter the house at night in order to report back on who is there, and for that reason they are killed as soon as they are seen (Ann Chowning, pers. comm.). In Nakanai (MM), although its speakers consider that fireflies embody spirits of the dead, they are delighted if a firefly enters the house at night, because it is a sign that someone recently dead is paying a visit (Ann Chowning, pers. comm.). Ivens writes that fireflies are popularly classified as ghosts in Sa’a and Ulawa (1927:189), and in his Sa’a dictionary he defines fireflies (*pulu-pulu*) as ‘souls of dead persons’. The Tolo people of Guadalcanal regard cicadas and fireflies as the ghosts of unknown people, or ghosts of the forest (Ivens 1930:229). Tamambo (NCV) speakers are frightened of them, and try to avoid them as ‘little devils’ (Dorothy Jauncey pers. comm.). In Wayan Fijian, fireflies (*tōtōvuata*) are believed to be a sign of the gods inspecting fruit crops. The Rennellese see a firefly as the embodiment of a goddess.

The belief that fireflies are messengers of doom is an ancient one among Austronesian speakers. Blust (pers. comm.) provides additional evidence from Isneg (northern Philippines) that fireflies are precursors of death, and Karo Batak (northern Sumatra) where their presence in a house signals that thieves will come. Of all POc reconstructions, then, I should expect that for ‘firefly’ to be most likely to retain the *kali-/qali-* indicator of supernatural status. I have limited evidence supporting two reconstructions derived from PMP **qali-petpet*, POc **qali-popot* ‘firefly’ and POc **(k,q)ali-totop* ‘firefly’, the latter with metathesis. POc **(k,q)ali-totop* depends on one reflex, from Rennellese, for reconstruction of its first element and on another, Nduke, for reconstruction of its second element.

PMP **qali-petpet* ‘firefly’ (ACD: WMP)

POc **qali-popot* ‘firefly’

NCV: Lewo *le-popo* ‘firefly’

NCV: Tamambo *vovo(mbo)* ‘firefly; regarded as little devils and avoided’

PMP **qali-petpet* ‘firefly’ (ACD)

POc **(k,q)ali-totop* ‘firefly’ (metathesis)

NNG: Takia *lu-tot* ‘firefly’

MM: Tangga *kel-tot* ‘firefly’

MM:	Nduke	<i>alal-totovo</i>	‘luminous flying insect. its light flashes on-off’
Pn:	Rennellese	<i>ʔagi-to</i>	‘firefly, seen inland, a rare phenomenon; believed to be the embodiment of the goddess Sikingimoemoe, and might not be killed’

A putative reconstruction, POc **bulu-bulu* ‘firefly’, must be regarded as dubious because witnesses are from adjoining subgroups where borrowing cannot be ruled out. Etymons may be derived from POc **bulut* ‘gum’ whose reflexes can include ‘a torch (of gum)’, and thus extend to ‘light, firefly’.

MM:	Nehan	<i>bol-bol</i>	‘lightning bug, near swamps’
SES:	Gela	<i>bulu</i>	(<i>tora</i>) ‘firefly; phosphorescent fungus’ (<i>bulu</i> ‘torch, lamp’) ⁸
SES:	Sa’a	<i>pulu-pulu</i>	‘firefly. Regarded as souls of dead persons, and killed when they enter a house’
SES:	Kwaio	<i>bulu-bulu</i>	‘star; firefly. Believed (esp. when enters house) to be a messenger from an ancestral spirit.’
SES:	Arosi	<i>buru-buru</i>	‘firefly; torch (of gum)’
		<i>buburu(atoā)</i>	‘k.o. cricket’ (<i>atoā</i> ‘noon’)
SES:	‘Are’are	<i>puru-puru</i>	‘star; firefly’
SES:	To’aba’ita	<i>būbulu</i>	‘star; firefly; beetle sp.’

Other terms use reflexes of POc **mata* ‘eye’, sometimes extended to ‘star’ and ‘firefly’.

NNG:	Mengen (Poeng)	<i>mata</i>	‘eye; star; firefly’ (<i>mata-balan</i> ‘bee/wasp’)
MM:	Nakanai	<i>mata(tabu)</i>	‘star; firefly’
		<i>mata(laso)</i>	‘k.o. long glow worm’

Other languages may make similar associations between fireflies, stars and sometimes phosphorescence.

NNG:	Sengseng	<i>limlek</i>	‘firefly; star’
MM:	Roviana	<i>pinoro</i>	‘phosphorescence as seen in the sea or on fireflies etc.’ (<i>pino-pino</i> ‘a star’)

15 Beetles (Order Coleoptera)

Although there are thousands of different beetle species, very few taxa are named in wordlists. Only two POc reconstructions have been made, and in the first listed below there are grounds for believing that the gloss given in many of the daughter languages is a recent adaptation. The large rhinoceros beetle (*Oryctes rhinoceros*), which bores into the crown of the coconut palm and is considered a serious pest in many parts of the Pacific, is believed to have been

⁸ This etymon and Bugotu *tora* ‘to be phosphorescent’ support PGuadalcanal-Gelic **[to]tora* ‘firefly, s.t. phosphorescent’.

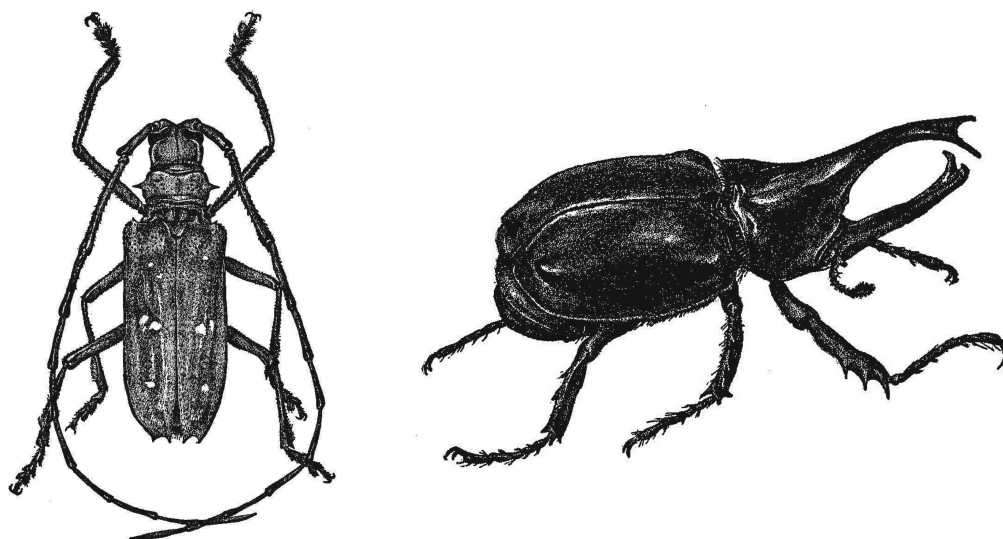


Figure 7.7 Left Longicorn beetle. Right *Oryctes rhinoceros*, rhinoceros-beetle.

introduced from southeast Asia only in the 20th century (Gressitt & Hornabrook 1985:34). A beetle similar in appearance and behaviour is *Xylotrupes gideon*, found in almost all parts of New Guinea. Presumably, speakers used an existing beetle term to refer to the introduced beetle. The second reconstruction, POc **kamak*, probably refers to longicorn beetles, those with extremely long antenna (Family Cerambycidae), the larvae of which attack timber.

POc **tabuRuRu* 'k.o. beetle'

NNG:	Sengseng	<i>taput</i>	'an enormous black beetle'
MM:	Nakanai	<i>tabuburu</i>	'coconut beetle' (expect † <i>tabururu</i>)
MM:	Tabar	<i>taburu(ŋa)</i>	'beetle'
MM:	Tolai	<i>taburur</i>	'horned beetle'
MM:	Kara (East)	<i>tevu(ŋun)</i>	'rhinoceros beetle'
SES:	Gela	<i>tabelulu</i>	'rhinoceros beetle'
SES:	Bugotu	<i>tabilolo</i>	'rhinoceros beetle'
NCV:	Uripiv	<i>barur</i>	'yam weevil, <i>Papuana</i> beetle' (loss of first syllable unexplained)
SV:	Sye	<i>n-tompi</i>	'k.o. beetle'

cf. also:

NNG:	Mapos Buang	<i>abu</i>	'rhinoceros beetle'
MM:	Nduke	<i>vure</i>	'rhinoceros beetle'

POc **kamak* 'beetle, possibly longicorn'

NNG:	Kaulong	<i>kamak</i>	'k.o. insect; large, edible, found inside the hollows of trees'
NNG:	Yabem	<i>kaŋ</i>	'beetle: capricorn beetle, stag beetle, horned beetle, weevil'
NNG:	Sengseng	<i>makah</i>	'longicorn beetle' (metathesis)

PT:	Iduna	<i>kama</i>	‘large insect with long fat body’
Pn:	Tikopia	<i>kama</i>	‘insect, possibly of various types, attacks cultivated plants’

cf. also:

MM:	Nakanai	<i>komaga</i>	‘long thin black beetle, edible, longicorn beetle’
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A surprising omission from most wordlists are terms for the taro beetle (*Papuana uninodis*). Although these beetles may be as long-established in the region as the tubers which we know were cultivated in Proto Oceanic times, I have not been able to reconstruct a term for them other than Proto SE Solomonic **ko[l,R]o-ko[l,R]o* ‘beetle that attacks plants’. Damage to the tuber is caused by the adult beetles, and not by their larval stage which feeds on soil and roots (Robin Hide, pers. comm.). I can locate very few terms for the pest in Western Oceanic languages, none cognate. Although damaged tubers cause significant economic loss in today’s marketing terms, it may be that the damage was of little significance when tubers were primarily for home consumption.

Proto SE Solomonic **ko[l,R]o-kol,R]o* ‘beetle that attacks plants’

SES:	Bugotu	<i>kololo</i>	‘coconut beetle’
SES:	Gela	<i>kololo</i>	‘taro-eating beetle’
SES:	’Are’are	<i>ʔoro-ʔoro</i>	‘taro-boring beetle’
SES:	To’aba’ita	<i>ʔoro(k^wao)</i>	‘k.o. white worm, attacks sugar-cane stems’ (<i>k^wao</i> ‘white’)

cf. also:

SES:	Sa’a	<i>ʔoroʔoro</i>	‘beetle that bores into yams’ (for † <i>ʔoloʔolo</i>)
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Wordlists contain a few references to edible beetles. Sudest (PT) has a term *gilai* ‘a large black sago beetle; people eat both the adults and the larvae’; Nakanai (MM) has *komaga* ‘an edible insect like a long thin black beetle’ and *bureka* ‘large (6 ins) edible insect found in trees’; Wayan (Fij) has *gou* ‘large beetle, *Coleopterus* sp., 2 inches long with hard shell. Eaten by some people’.

16 Cockroaches (Order Blattodea = ‘light avoiders’)

Three POC reconstructions and one lower-level reconstruction can be made for ‘cockroach’.

PAn **Sipes* ‘cockroach’ (ACD)

POC **ipos* ‘cockroach’ (ACD)

Adm:	Nali	<i>yih</i>	‘cockroach’
Adm:	Nauna	<i>ih</i>	‘cockroach’
Adm:	Drehet	<i>ih</i>	‘cockroach’
NNG:	Mutu	<i>up</i>	‘cockroach’
NNG:	Kaulong	<i>e-yus</i>	‘cockroach’
NNG:	Sengseng	<i>e-yus</i>	‘cockroach’
MM:	Tolai	<i>ipi(na)</i>	‘sp. beetle’ (<i>ipina-koto</i> ‘cockroach’)
NCal:	Cèmuhî	<i>ìwet</i>	‘cockroach’

NCal:	Nemi	<i>yuet</i>	‘cockroach’
cf. also:			
NCV:	Raga	<i>ihi</i>	‘cockroach’ (for expected <i>ivi</i>)

POc **musi* ‘cockroach’

PT:	Roro	<i>muhi</i>	‘cockroach’ (for expected <i>musi</i>)
MM:	Maringe	<i>mhi-mhi(gi)</i>	‘stink beetle’
SES:	Bugotu	<i>muhu</i>	‘cockroach, beetle’
SES:	Gela	<i>muhu</i>	‘cockroach’
SES:	Tolo	<i>musu</i>	‘cockroach’
SES:	Ghari	<i>mosu</i>	‘small cockroach’

Final *-u* for †*-i* in the SES items appears to reflect vowel assimilation.

The next set shows a variety of reduplication patterns. Some Polynesian terms show possible contamination from English *cockroach* or Spanish *cucaracha*.

POc **k^waru-k^waru* ‘cockroach’

PT:	Bwaidoga	<i>k^walu-k^walu</i>	‘cockroach’
MM:	Nehan	<i>kur-kuru</i>	‘cockroach’
MM:	Banoni	<i>karo</i>	‘small white cockroach’
Pn:	Tongan	<i>kakalu</i>	‘large cricket/cicada sp.’
Pn:	E Futunan	<i>kakalu</i>	‘that which smells bad’
Pn:	Samoan	<i>alalū</i>	‘cockroach’
Pn:	Tahitian	<i>aʔararū</i>	‘small beetle’
Pn:	Māori	<i>kekererū</i>	‘stinkroach’
Pn:	Hawaiian	<i>ʔelelū</i>	‘cockroaches’

PPn **moŋa-moŋa* ‘cockroach’ (POLLEX)

Pn:	Tongan	<i>moŋo-moŋa</i>	‘any kind of beetle or cockroach’
Pn:	Niuean	<i>moŋa-moŋa</i>	‘cockroach’
Pn:	Samoan	<i>moŋa-moŋa</i>	‘cockroach’
Pn:	Nanumea	<i>moŋa-moŋa</i>	‘beetle sp.’
Pn:	Tokelauan	<i>moŋa-moŋa</i>	‘cockroach’

17 Grubs, caterpillars

Grubs and caterpillars are the larval stages of beetles (Coleoptera) and butterflies (Lepidoptera). Particular kinds are more likely to be named if they are a useful food source, or if they attack crops.

One which is widely recognised is the edible sago grub (Order Coleoptera, family Curculionidae), a valuable source of protein. Sago grows in low-lying, swampy areas of Melanesia where other food plants do not thrive. Lack of the means of a varied diet may contribute

to the specialised sago grub cultivation employed by the Labu (NNG) people.⁹ In Sissano the sago grubs, *yiat*, are used in food offerings to the spirits in some healing ceremonies (Whiteacre wordlist).

The Admiralties languages in the next set all have *-e-* for *†-a-*.

PMP **qabated* ‘sago grub’ (Blust 2002)

POc **qapator* ‘sago grub, edible’

Adm:	Loniu	<i>het</i>	‘sago grub’
Adm:	Ere	<i>ehet</i>	‘sago grub’
Adm:	Titan	<i>aet</i>	‘sago grub’ (for <i>†ahat</i>)
Adm:	Pak	<i>keher</i>	‘sago grub’
Adm:	Penchal	<i>kahet</i>	‘sago grub’
Adm:	Lenkau	<i>kehetr</i>	‘sago grub’
NNG:	Sissano (Arop)	<i>yiat</i>	‘sago grub’
NNG:	Kove	<i>awatolu</i>	‘sago grub’
NNG:	Gedaged	<i>gafat</i>	‘big grub found in rotten sago logs. Eaten raw or roasted. A great delicacy’ (initial <i>g-</i> unexpected)
PT:	Lala	<i>avako</i>	‘grub, found in sago palms’
SES:	Gela	<i>vato</i>	‘k.o. grub, eaten as food on Mala’
SES:	Ghari	<i>vato</i>	‘white worm in decayed tree’
SES:	Arosi	<i>hao</i>	‘white grub in rotten wood, eaten’ (first syllable lost)
SES:	Lau	<i>safao</i>	‘grub that eats sago palms’
SES:	Kwaio	<i>lafao</i>	‘large edible grub, larva of stag beetle’
SES:	Sa’a	<i>sahao</i>	‘the grub found in fallen logs of breadfruit tree, supposed to turn into the cockchafer beetle’
SES:	’Are’are	<i>rahao</i>	‘big, white worm, lives in dead trees’
NCV:	Mota	<i>vato</i>	‘white grub found in dead trees, eaten’
NCV:	Lewo	<i>varo</i>	‘grub found in dead wood, edible’
NCV:	Raga	<i>avato</i>	‘large white insect found in trees, edible, larva of longhorn beetle’
SV:	Sye	<i>n-avat</i>	‘edible wood grub’
SV:	Anejoñ	<i>n-ahat</i>	‘edible wood grub’
Fij:	Wayan	<i>avato</i>	‘wood-boring grubs of various species’
Fij:	Bauan	<i>yavato</i>	‘grub in a tree, develops into the coleopterous called <i>qou</i> ’
Pn:	Tongan	<i>ʔofato</i>	‘k.o. white grub found in timber, sometimes eaten’
Pn:	Samoa	<i>ʔafato</i>	‘large edible grub, found in dry trees’ (<i>ʔ-</i> unexpected)
Pn:	E Futunan	<i>ʔafato</i>	‘larvae which are eaten; large edible grub, found in dry trees’

⁹ C. W. L. Mercer (1994) describes a study conducted on the inland margin of the Labu swamp (near Lae), where the thorny stemmed sago palm species *Metroxylon rumphii* is used almost exclusively by the Labu people for raising the grub of the palm weevil *Rhynchophorus ferrugineus papuanus*, which is an important source of protein (and also a pest of the living palms).

- Pn: Rennellese *ahato* ‘larva of longicorn beetle *Olethrus tyrranus*’ (for †*ʔahato*)
- cf. also:
- PT: Sinaugoro *kavata* ‘caterpillar’
- MM: Nakanai *(k,g)avato* ‘black lizard, found in rotten trees’ (*kopa* ‘larva of a beetle, found in trees and eaten’)

POc **muno* may have been a generic term for caterpillars. Reflexes are not found in Central Pacific where a reflex of POc **qanupe* is the most widespread term for ‘caterpillar’.

POc **muno[-muno]* ‘caterpillar, grub’

- Adm: Lou *mon-muon* ‘caterpillar’
- MM: Simbo *mu-muno* ‘worm’
- MM: Nduke *mu-muno* ‘looper caterpillar’
- MM: Roviana *muno-muno* ‘general name for caterpillars and grubs’
- SES: Bugotu *muno* ‘caterpillar’
- SES: Lau *muno* ‘caterpillar’
- SES: Sa’a *muno* ‘larva, chrysalis’
- SES: ’Are’are *muno* ‘caterpillar’
- SES: To’aba’ita *muna* ‘k.o. caterpillar that turns into a butterfly’
- Mic: Puluwatese *mūn* ‘caterpillar’
- Mic: Carolinian *m^wūl* ‘generic term for maggots, larvae or small worms’
- Mic: Woleaian *m^wura* ‘caterpillar, silkworm’
- cf. also:
- MM: Nduke *meno* ‘taro beetle’

Woc cognates of POc **qanupe* refer to trepangs,¹⁰ also known as beche-de-mer or sea slugs (ch.4, §5.2.1), while Eastern Oceanic cognates refer to caterpillars. Without external cognates, the meaning of POc **qanupe* is indeterminate.

POc **qanupe* ‘caterpillar or k.o. sea cucumber (indeterminate)’

PWoc **qanupe* ‘sea cucumber, holothurian’

- NNG: Kove *anuwe* ‘trepang’
- PT: Dobu *kanue* ‘beche de mer’
- PT: Galea *anue* ‘general term for all sea cucumbers’ (Lawrence Rutter pers.comm.)
- MM: Nakanai *haluve* ‘trepang’
- PEOc **qanupe* ‘caterpillar’
- SES: Ghari *nive* ‘caterpillar’
- Fij: Rotuman *aniha* ‘caterpillar, maggot’
- Fij: Bauan *(b)anuve* ‘caterpillar’
- Pn: Tongan *ʔunufe* ‘caterpillar (generic)’
- Pn: Samoan *ʔanufo* ‘worm, caterpillar’

¹⁰ Thanks to Ann Chowning for bringing this to my notice.

Pn:	Tikopia	<i>unūfe</i>	‘caterpillar’
Pn:	Nanumea	<i>anufe</i>	‘caterpillar, worm, slug, etc.’
Pn:	Tuamotuan	<i>anuhe</i>	‘caterpillar’

18 Centipedes (Class Chilopoda): Millipedes (Class Diplopoda)

Another **qali-* term, POc **qalipan* ‘centipede’, is reconstructable, probably embracing millipedes as well. Evidence of an association between centipedes and the supernatural comes from ethnographic descriptions as well as linguistic clues. For instance, Sengseng (NNG) speakers consider centipedes to be supernatural beings, and carefully remove them from their houses (Ann Chowning, pers. comm.). Elbert’s Rennellese dictionary defines *ʔagi-paipai* as ‘centipede, considered the embodiment of non-worshipped deities and a loathsome creature’. In his Tikopia dictionary Firth defines *morokau* as ‘centipede. Trad. held to be frequent embodiment of spirit’. There is also a Samoan term *atua-loa* ‘k.o. centipede with poisonous bite’, whose prefix *atua-* has supernatural significance (discussed in §27). In addition to the **qalipan* cognate set I list non-cognate terms for centipede from a range of languages across several subgroups which all exhibit a reflex of the *qali-/kali-* prefix.

Reflexes of **qalipan* are numerous and widespread. As well, I have a number of lower-level reconstructions, possibly for particular kinds of centipede. Two kinds of centipede/ millipede are described in wordlists, categorised by behaviour or luminosity rather than number of legs. One, when threatened, squirts a kind of acid from between its scales which can cause blisters or even permanent eye damage, while a second is described as phosphorescent or luminous. A millipede in Arosi (SES), *doŋa*, is also singled out as having a vile smell. I have one lower-level reconstruction for the luminous variety, PPn **taqe-tuli* ‘phosphorescent centipede or millipede’, whose first element is derived from POc **taqe* ‘excrement’, implying strongly that the creature is considered unpleasant in Central Pacific languages. In Tahiti, however, where there are two kinds, not venomous, one short and thick and light brown, the other long, threadlike and phosphorescent, they were well regarded. Teuira Henry (1971:391) writes that ‘when a centipede fell upon a wound or bruise of any kind, it soon healed. If it crawled upon a sick person, a speedy recovery followed.’

PAn **qalu-Sipan* ‘centipede’ (ACD)

PMP **qalu-hipan* ‘centipede’ (ACD)

POc **qalipan* ‘centipede’

Adm:	Mussau	<i>aliena</i>
Adm:	Wuvulu	<i>ali-alifa</i>
NNG:	Manam	<i>alia</i>
NNG:	Mangga	<i>garivan</i>
NNG:	Yalu	<i>kanif</i>
NNG:	Wampur	<i>ganef</i>
PT:	Maopa	<i>yaiva</i>
PT:	Gumawana	<i>ganiva</i>
PT:	Saliba	<i>kalihai</i>
PT:	Duau	<i>ganihana</i>

PT:	Motu	<i>aiha</i>	
MM:	Bola	<i>yaliua</i>	
MM:	Halia	<i>lihaŋ(a)</i>	
MM:	Nehan	<i>hilaŋ</i>	(metathesis)
MM:	Nduke	<i>livaŋ(a)</i>	
SES:	Gela	<i>liva</i>	
SES:	Bugotu	<i>liva</i>	
SES:	Lengo	<i>aliva</i>	
SES:	Lau	<i>safila</i>	(metathesis)
SES:	Kwaio	<i>lalifa</i>	
SES:	Arosi	<i>(karikari)?ariha</i>	
Fij:	Rotuman	<i>aniha</i>	‘maggot; also applied to many kinds of caterpillars and millipedes’
Fij:	Bauan	<i>yaliva</i>	‘a red millipede, possibly generic for millipedes’
cf. also:			
Pn:	Rennellese	<i>?agipaipai</i>	

Other terms for centipede which apparently exhibit a reflex of the *qali-kali-* prefix include:

Adm:	Drehet	<i>kxane-pūp</i>
PT:	Molima	<i>gani-geva</i>
MM:	Ririo	<i>kali-gava</i>
MM:	Sisiqa	<i>kala-gava</i>
MM:	Babatana	<i>kali-gava</i>

The compound terms below yield a reconstructed first element, PWOC **m^wali-*.

PWOC **m^wali-X* ‘millipede’

PT:	Bwaidoga	<i>m^wali(keke)</i>	‘millipede (yellow, causing irritation or burn to skin when it squirts acid from between scales)’
PT:	Kilivila	<i>m^wani(ta)</i>	‘centipede’
MM:	Maringe	<i>mali(so)</i>	‘millipede’

cf. also:

PT:	Molima	<i>p^wali(keke)</i>	‘millipede’
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POC **weli* (1) ‘fireworm, sea centipede’; (2) ? ‘k.o. millipede’ is included in chapter 4, §7.2.

PPn **taqe-tuli* ‘phosphorescent centipede/millipede’ (POLLEX)

Pn:	Tongan	<i>teʔe-tuli</i>	‘phosphorescent centipede’
Pn:	Rennellese	<i>taʔ-tugi</i>	‘long and slender centipede variety’
Pn:	Samoan	<i>tae-tuli</i>	‘phosphorescent millipede’
Pn:	Tikopia	<i>tae-turi</i>	‘millipede’

cf. also:

Fij:	Rotuman	<i>turi</i>	‘phosphorescent centipede’ (Pn borrowing)
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In Bugotu (SES) the term for a phosphorescent centipede, *liva tora*, is a literal description: (*liva* ‘centipede’, *tora* ‘phosphorescent’).

Reflexes of a reconstruction from a different semantic field, POc **tage* ‘excrement’ (see ch.2, p.60), have extended their meaning to refer to a centipede in Kahua (SES) and Bauan Fijian and a scorpion in Tamambo (NCV) and Anejoñ (SV), no doubt reflecting their common characterisation as painful stinger.

19 Scorpions (Class Arachnida: Order Scorpiones)

A substantial number of terms for scorpions have been collected, but only a single reconstruction, Proto SE Solomonic **vari* ‘scorpion’ (not listed here) has been possible. In the Solomons, many terms are compounds or phrases which include the word for centipede (Gela *liva-ni mala*, Birao *kaukau-liva*, Lengo *aliva-ni-yoro*). Although centipedes and scorpions belong to different zoological classes, the linking of the two creatures in this way may be due to the similar appearance of grasping pincers, and to the facts that both are capable of delivering a severe bite or sting, and both frequent the same habitat, under rocks or leaf litter. The scorpion is named as crab-like in Gapa-paiwa (*g^waya-g^waya* ‘scorpion; idiom for one who moves slowly and fearfully on heights’) (*g^waya* ‘crab (generic)’) and possibly also in Molima (*dowa* ‘scorpion, land crab’), although Chowning adds a question mark to her gloss.

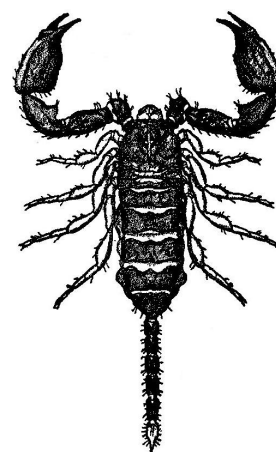


Figure 7.8 *Hormurus* sp., scorpion

20 Spiders (Order Araneae)

Although POc speakers would undoubtedly have named a range of spiders, I have not been able to link reconstructions with specific kinds of spider. I have only one lower-level example in which a name is assigned to a particular spider — PCP **tuku-tuku* ‘k.o. spider that lets itself down by a single thread’. POc **lawaq*, traceable back to PAn, with cognates right across the Oceanic region, may have referred primarily to ‘spider’ but by POc times had come to refer as well to ‘spider web’ and ‘k.o. fish net’ (see vol.1, p.212). I also find a number of reconstructions with formal similarities, including POc **koko*, POc **gagao~*(g,k)a(g,k)a-*, PWoc **kuku*, and PEOc **[ko]ko-miji*. Some kind of word play has evidently taken place, although I have no ethnographic evidence that particular spiders are associated with any kind of supernatural belief or taboo. On the contrary, they are freely eaten in many communities. Wordlists of a number of languages including Molima and Sinaugoro (PT), Takia (NNG) and Hawaiian (Pn), record particular kinds of edible spider.

Reconstructions other than **lawaq* have an unusually large number of reflexes which are compounds with a non-reflected element. These reconstructions may refer to particular kinds of spider. As Pawley (2000:8) has noted, names for folk specifics in plants and animals, or, to be more exact, the secondary or modifying terms in binomials, are notoriously unstable and will, in most cases, not be reconstructable for a language as remote in time as POc.

PAn **lawaq* ‘spider’ (Blust 2002)

POc **lawaq* ‘spider, spider web’ (Also ‘fish net’)

Adm:	Loniu	(wi)law	‘spider’
NNG:	Tuam	lawag	‘spider’
NNG:	Gitua	lawak	‘spider’
NNG:	Malai	lawak	‘web’
NNG:	Wogeo	lawa	‘spider’
PT:	Bwaidoga	nawaya	‘spider’
PT:	Gapapaiwa	nawa-nawa	‘spider web’
PT:	Sudest	lawa	‘spider’
PT:	Motu	vala-vala	‘cobweb’ (metathesis)
MM:	Vitu	lava	‘spider’s web’
SES:	Lau	lak ^w a	‘k.o. large yellow spider and large web’
SES:	Kwaio	lak ^w a-lak ^w a	‘spider web’
SES:	’Are’are	rawa	‘spider, cobweb’
SES:	Sa’a	lawa	‘spider’s web, spider’
SES:	Arosi	rawa	‘spider, cobweb, small net’
NCV:	Mota	(ta)lau	‘cobweb, either single line or web’
NCV:	Nguna	(ka)lau	‘spider (web)’
SV:	Anejoñ	ni-lva	‘spider web’
Fij:	Bauan	lawa	‘fishing net’
		viritā lawa-lawa	‘cobweb’
		tina-ni-viritā lawa-lawa	‘spider’ (lit. ‘mother of cobweb’)

PPn **lewe* is probably cognate, with reduplication and addition of the prefix **ka-*, which may reflect **k^wak^wa*, discussed below the next item.

PPn **ka-lewe-lewe* ‘cobweb, spider’ (POLLEX)

Pn:	Niuean	ka-leve	‘cobweb’
Pn:	Tongan	ka-leve-leve	‘k.o. spider’
Pn:	E Futunan	ka-leve-leve	‘spider, spiderweb’
Pn:	Samoa	ʔa(ponā)-leve-leve	‘spider; spider’s web’
Pn:	Tikopia	ka-reve-reve	‘spider’s web, all types’
Pn:	Emae	ka-reve-reve	‘spider web’
Pn:	Rarotongan	(pūñā)vere-vere	‘spider web’ (pūñā ‘fortress, retreat’) (metathesis)
Pn:	Hawaiian	(pūñā)wele-wele	‘spinning spider’ (metathesis)
Pn:	Tuamotuan	(punā)vere-vere	‘a cobweb’ (metathesis)

In the cognate set below the Malai (NNG) term and those from the Malakula languages Nahai’i, Axamb and Nisvai (NCV) speak in favour of a freestanding POc **gagao*, whilst the Molima (PT), Teop, Simbo, Torau, Kia, Kokota (all MM) and Gela (SES) terms point to **gaga-* and **kaka-* as forms occurring in compounds.

POc **gagao* ~ **(g,k)a(g,k)a-* ‘k.o. spider’

NNG:	Malai	(a)gagau	‘spider’
PT:	Molima	gaga(boʔa)	‘house spider’

MM:	Teop	<i>kaka(rebasu)</i>	‘spider’
MM:	Simbo	<i>yaya(vere)</i>	‘spider’
MM:	Torau	<i>kaka(piro)</i>	‘spider’
MM:	Roviana	<i>kaga</i>	‘spider with long legs, lives in the house’
MM:	Kia	<i>kaka(para)</i>	‘spider’
MM:	Kokota	<i>kaka(fre)</i>	‘spider’
SES:	Gela	<i>kaka(vere)</i>	‘spider’ (probably borrowed from an Isabel language)
NCV:	Raga	<i>(ta)gaga</i>	‘generic for spiders’
NCV:	Naha’ai	<i>ne-gegeu</i>	‘spider’ (John Lynch, pers. comm.)
NCV:	Axamb	<i>na-gagao</i>	‘spider’ (John Lynch, pers. comm.)
NCV:	Nisvai	<i>na-gao</i>	‘spider’ (John Lynch, pers. comm.)

POc **koko* and PWoc **kuku* may be variants of the same term as **kaka*. Two alternate hypotheses about their origins are (a) that **ko* reflects the second syllable of **gagao*, and (b) that the reflexes supporting **kaka-*, **koko* and **kuku* reflect POc **k^wak^wa*. Evidence for (b) is that (i) SE Solomonic languages retain *k-*, and this is diagnostic of POc **k^w-*, and (ii) Western Oceanic (PT, MM) reflexes other than Simbo retain *k-* rather than leniting it to *y-* or zero, the usual reflexes of **k-*.

POc **koko* becomes **[ko]ko-miji* ‘k.o. spider’ in PSES with the addition of *-miji*, an element which occurs also in other compounds meaning ‘spider’ (Dori’o [SES] *kala-midi*) although not found separately. It also may occur in Nakanai *kamimisi* ‘spider’, if interpreted as *kami-misi* with *kami-* < *kali* by assimilation. I am unable to suggest a meaning for POc **-miji*, other than to note that I have found it only in spider terms.

POc **koko* ‘spider’

NNG:	Mumeng (Patep)	<i>kɔɔ</i>	‘spider’s web’
PT:	Dobu	<i>(wa)koko</i>	‘brown house spider’
MM:	Tolai	<i>koko</i>	‘spider: all kinds of house spider’
MM:	Kandas	<i>ko</i>	‘spider’
MM:	Halia	<i>koko(ratski)</i>	‘spider; starfish’

Proto SE Solomonic **[ko]ko-miji* ‘k.o. spider’

SES:	Lengo	<i>ka-midi</i>	‘spider’
SES:	Longgu	<i>ko-midi</i>	‘spider’
SES:	Tolo	<i>koko-mici</i>	‘large house spider’
SES:	Talise	<i>ko-mici</i>	‘spider’
SES:	Ghari	<i>ko-mici</i>	‘common spider’
SES:	Malango	<i>ko-miji</i>	‘spider’

cf. also:

PT:	Wedau	<i>(wa)gogo</i>	‘k.o. spider’
PT:	Gapapaiwa	<i>(wa)koko</i>	‘spider type; A specific large species of spider which occupies our outhouse’
Pn:	Rennellese	<i>ko-miti</i>	‘various spiders that bite’ (possible borrowing from SES)

PWOC **kuku* ‘spider’

NNG:	Bariai	<i>kuku</i>	‘spider’
NNG:	Gedaged	<i>kuk</i>	‘spider’
NNG:	Kilenge	<i>na-kuku(n)</i>	‘spider’s web’
NNG:	Malalamai	<i>kuku(lamlambe)</i>	‘spider’
MM:	Vitu	<i>(pa)kuku</i>	‘spider’
MM:	Bali	<i>(ma)kuku</i>	‘spider’
MM:	Nakanai	<i>kuku(re)</i>	‘spider’
MM:	Marovo	<i>kuku</i>	‘hunter spider’

PWOC **ka(p,b)ilak^wa* ‘k.o. spider’

NNG:	Mapos Buang	<i>kapik</i>	‘large brown hairy spider’ (for † <i>kabiyok</i>)
PT:	Molima	<i>kapinoko</i>	‘k.o. edible black bush spider’
MM:	Nakanai	<i>kalalaua</i>	‘spider web’ (<i>kala-</i> for † <i>kabe-</i> by assimilation)
MM:	Kara (West)	<i>kabelaua</i>	‘spider’
MM:	Tigak	<i>kavelo</i>	‘k.o. spider’
MM:	Lamasong	<i>kabilon</i>	‘k.o. spider’
MM:	Minigir	<i>(ka)kobiloko</i>	‘k.o. spider’
MM:	Tolai	<i>kabiloko</i>	‘spider; spider web’
MM:	Ramoaaina	<i>kabulak</i>	‘spider, cobweb’
MM:	Bilur	<i>kabilak</i>	‘spider’

The only reconstruction which can safely be attributed to a particular kind of spider is PCP **tuku-tuku* ‘k.o. spider which lowers itself on a single thread’, from PCP **tuku* ‘let down’.

PCP **tuku-tuku* ‘k.o. spider which lowers itself on a single thread’

Fij:	Rotuman	<i>fuʔ-fuʔu</i>	‘k.o. spider that lets itself down on a thread’
Fij:	Bauan	<i>tuku-tuku</i>	‘k.o. small spider’
Pn:	Tikopia	<i>tuku-tuku</i>	‘spider (unid. but includes daddy long legs. Trad. a creature with silk thread, assoc. with spiritual beings Manu and Tangaroa)’
Pn:	Māori	<i>tuku-tuku</i>	‘spider web; ornamental latticework’
Pn:	Tuamotuan	<i>tuku-tuku</i>	‘k.o. harmless spider’
Pn:	Hawaiian	<i>kuʔu-kuʔu</i>	‘short-legged spider, lowers itself on a single thread’

21 Leeches (Class Hirudinea)

There is a well-supported POC reconstruction for ‘leech’ based on reflexes in NNG, PT and NCV languages. I have not so far located any term for leech, cognate or otherwise, east of Fiji, and assume that the creatures are not found in Micronesia or Polynesia (with the exception of New Zealand, where the Māori term is *hata* i.e. ‘snake’) (Ross Clark, pers. comm.). Pawley has reconstructed a similar term, PROc **drumane* ‘anemone’ (ch.4, §6.1) which is almost in complementary distribution, and the terms may be related.

POc **droman* ‘leech’

NNG:	Mangga	<i>domaŋ</i>	
NNG:	Mapos Buang	<i>domŋ</i>	
NNG:	Adzera	<i>tuaman</i>	
PT:	Are	<i>domeni</i>	
PT:	Gapapaiwa	<i>domani</i>	
PT:	Tawala	<i>domani</i>	
PT:	Dobu	<i>domana</i>	
PT:	Molima	<i>domana</i>	‘mountain leech’
PT:	Nimoa	<i>dome</i>	
PT:	Lala	<i>toma</i>	
PT:	Motu	<i>doma</i>	
PT:	Taboro	<i>doma</i>	
NCV:	Tamambo	<i>ruma</i>	
NCV:	Raga	<i>rim^wa</i>	
NCV:	NE Ambae	<i>rim^we</i>	

cf. also:

MM:	Nakanai	<i>soma</i>	(for † <i>doma</i>)
MM:	Tolai	<i>domol</i>	

22 Worms

22.1 Worm (generic)

There is a widespread belief among Austronesian speakers that dental caries is caused by a small worm. Both the creature and the associated condition are named in different languages by reflexes of various reconstructed terms for ‘worm’. Blust comments on two WMP languages, Cebuano and Malagasy, whose reflexes of PAN **qulej* ‘maggot’ refer also to ‘tooth decay’ or ‘toothache, supposed to be occasioned by a small worm in the tooth’ (ACD) (§23). Dobu (PT) has a term *kim^wata* ‘the supposed insect which causes caries in children’ (*m^wata* ‘snake’). The To’aba’ita term is *wā-lifo* ‘tooth decay, believed to be caused by worms’ (*wā* ‘worm, grub, maggot, caterpillar, larva’, *lifo* ‘tooth’). Other WMP languages refer to tooth decay by reflexes of PMP **bukbuk* ‘weevil that infests wood, bamboo, and rice; dust produced by the boring of this insect; tooth decay’ (ACD) (§9). Codrington also reports the belief as existing in the Banks Islands (NCV) (1891:193).

It seems likely that POc **m^wata-m^wata*, the reduplicated form of **m^wata* ‘snake’, was a generic for worms and worm-like creatures, including caterpillars and millipedes. In places it has reverted to its unreduplicated form, either as a generic for snakes and other snake-like creatures, or, as in Micronesia and Seimat, to refer to worms alone. In Micronesia there are no snakes except on Guam, where they have been introduced in comparatively recent times (Jeff Marck, pers. comm.), and hence there is no need to maintain the distinction. I have not been able to ascertain if snakes are found in the Ninigo Islands, where Seimat is spoken.

POc **m^wata-m^wata* ‘generic for worms and worm-like creatures’

Adm:	Seimat	<i>wat</i>	‘land worm’
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NNG:	Kove	<i>mota</i>	‘snake, eel, caterpillar’
NNG:	Bing	<i>mut-muat</i>	‘caterpillar’
NNG:	Yabem	<i>moa?</i>	‘snake, and as first element in compounds (worm, caterpillar, slug, snail and millipede)’
PT:	Gapapaiwa	<i>sulata(ramoa)</i>	‘caterpillar, worm (not earthworm)’
PT:	Bwaidoga	<i>mota-mota</i>	‘grub, caterpillar which eats leaves of yams, taro etc.’
PT:	Sudest	<i>m^wata(wadi)</i>	‘a small black millipede’
PT:	Minaveha	<i>m^wata-m^wata</i>	‘caterpillar, worm, maggot or small snake’
PT:	Dobu	<i>m^wata-m^wata</i>	‘earthworms, intestinal worms’
PT:	Molima	<i>m^wata-m^wata</i>	‘intestinal worms’
PT:	Kilivila	<i>m^wateta</i>	‘worm’
PT:	Gumawana	<i>moteta</i>	‘snake, worm’
SES:	Sa’a	<i>m^wā-m^wā</i>	‘maggot, worm’
PEOc <i>*m^wata</i> ‘snake, worm’			
SES:	’Are’are	<i>mā</i>	‘generic term for snake, worm’
SES:	Kwaio	<i>wā</i>	‘snake; various worms, various snake-like creatures’
SES:	To’aba’ita	<i>wā</i>	‘worm, grub, maggot, caterpillar, larva’
SES:	Lau	<i>wā</i>	‘(1) snake, (2) worm, maggot’
Mic:	Kiribati	<i>m^wata</i>	‘grub, caterpillar, worm’
Mic:	Mokilese	<i>m^wac</i>	‘worm’
Mic:	Carolinian	<i>m^wata</i>	‘worm, earthworm’
Mic:	Woleaian	<i>m^wat</i>	‘underground worm’
Mic:	Puluwatese	<i>mōho</i>	‘worm, general name (incl. intestinal worms)’
Pn:	Māori	<i>ηata</i>	‘snail, slug, leech’

22.2 Other worm taxa

Blust has reconstructed PMP **bulati* ‘roundworm, ascaris, intestinal worm; also earthworm?’ (ACD) without Oceanic reflexes. I have reconstructed POc **sulati* ‘worm’ which evidently carries a common root, *-lati*. The Oceanic evidence does not permit further differentiation of meaning.

POc **sulati* ‘worm’

PT:	Sudest	<i>ula-ulari</i>	‘worm’
NCV:	Tamambo	<i>sulati</i>	‘earthworm’
NCV:	Mota	<i>sulate</i>	‘worm’
NCV:	Mwotlap	<i>ni-slat</i>	‘worm’
NCV:	Raga	<i>silosi</i>	‘general term for worms incl. earthworms and intestinal worms’
NCV:	Paamese	<i>a-silati</i>	‘worm’
NCV:	Nguna	<i>a-sulati</i>	‘hookworm, tapeworm’

The next reconstruction, PNGOc **dim^wan* ‘k.o. worm’, bears some similarity to POc **droman* ‘leech’ but a contrast is preserved in some languages, e.g. Molima *domana* ‘mountain leech’, *dim^wa-m^wana* ‘worm’; Dobu *domana* ‘leech’, *di-dim^wana* ‘common earthworms,

small lizards'; Gapapaiwa *domani* 'leech', *dimo(moga)* 'earthworm'; Sinaugoro *doma* 'leech', *dimo* 'worm'). The resemblance appears to be accidental.

PNGOc **dim^wan* 'k.o. worm'

NNG:	Tami	<i>tim^wa</i>	'worm, maggot'
NNG:	Numbami	<i>(mota)dina</i>	'worm' (<i>mota</i> 'snake')
PT:	Molima	<i>dim^wa-dim^wa-na</i>	'earthworms'
PT:	Dobu	<i>di-dim^wa-na</i>	'common earthworms, small lizards'
PT:	Sewa Bay	<i>dim^wana-na</i>	'worm'
PT:	Duau	<i>di-dim^wana</i>	'worm'
PT:	Gapapaiwa	<i>dimo(moga)</i>	'earthworm'
PT:	Gumawana	<i>dimona-na</i>	'an earthworm'
PT:	Muyuw	<i>sim^wa(m^wat)</i>	'maggots, worms' (<i>m^wat</i> 'snake')
PT:	Sudest	<i>jimo-jimo</i>	'earthworm'
PT:	Sinaugoro	<i>dimo</i>	'worm'
PT:	Hula	<i>rimo</i>	'worm'
PT:	Kuni	<i>sima</i>	'worm'

PPn **kele-mutu* 'earthworm, grub' (POLLEX: PPn **kele* 'earth, dirt, soil')

Pn:	Niuean	<i>kele-mutu</i>	'worm'
Pn:	Tongan	<i>kele-mutu</i>	'earthworm, grub'
Pn:	Samoa	<i>ʔele-mutu</i>	'grub in rotten wood'
Pn:	Tuvalu	<i>kele-mutu</i>	'earthworm, grub'
Pn:	Tokelauan	<i>kele-mutu</i>	'earthworm, grub'

cf. also:

Adm:	Loniu	<i>(te)keli-m^wet</i>	'earthworm, grub'
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See also chapter 4, §7.1 and §7.2, for POc **ibo* 'sandworm' and POc **weli* 'fireworm' respectively.

23 Maggots

POc **quloc* continues the PAn term for 'maggot', **qulej*. Some reflexes show /i/ instead of /u/ in the first vowel, a common sporadic change in many forms.

PAn **qulej* 'maggot' (ACD)

POc **quloc* 'maggot'

Adm:	Lou	<i>kul</i>	'maggot'
Adm:	Loniu	<i>un</i>	'maggot'
Adm:	Titan	<i>ul</i>	'maggot'
PT:	Motu	<i>ulo-ulo</i>	'maggot'
PT:	Lala	<i>ulo(li)</i>	'worm'
PT:	Suau	<i>uro-uro</i>	'fly'
MM:	Roviana	<i>uloso</i>	'maggot'

		<i>ul-uloso</i>	‘maggot (PL)’
MM:	Maringe	<i>n-ulho</i>	‘maggot’
SES:	Bugotu	<i>ulo</i>	‘maggot’
SES:	Arosi	<i>uro</i>	‘worm, maggot’
NCV:	Mota	<i>ulo</i>	‘maggot’
NCV:	Raga	<i>ulehi</i>	‘small worm’
NCV:	Tape	<i>wilās</i>	‘maggot’
NCV:	Namakir	<i>ʔil</i>	‘maggot’
SV:	Sye	<i>n-ilah</i>	‘maggot’
SV:	Anejoñ	<i>n-ija</i>	‘maggot’
NCal:	Cèmuhi	<i>únet</i>	‘maggot’
NCal:	Caaàc	<i>kōlet</i>	‘maggot’
Mic:	Kiribati	<i>ino</i>	‘a worm, larva’
Mic:	Puluwatense	<i>wūl, yīl</i>	‘maggot’
Mic:	Kosraean	<i>ulε</i>	‘maggot’
Mic:	Woleaian	<i>iṛ</i>	‘maggot, larva’
Fij:	Wayan	<i>ilo</i>	‘maggot’
Fij:	Bauan	<i>ulo</i>	‘maggot’
Pn:	Samoan	<i>ilo</i>	‘maggot’
Pn:	Tahitian	<i>iro</i>	‘generic for maggots, worms’
Pn:	Marquesan	<i>iʔo</i>	‘worm, maggot’
Pn:	Māori	<i>iro</i>	‘maggot, threadworm, vermin’
Pn:	Hawaiian	<i>ilo</i>	‘maggot, grub; to creep, as worms’

The next reconstruction illustrates what was evidently a productive process in POc, the addition of *-a(n)* to a term *X*, where *X* could be water, sennit, people, pigs etc., to indicate a state of being ‘full of *X*’ or in the case of insects, infested with the insect. Besides POc **qulos-a(n)* ‘be maggoty’ I can reconstruct PEOc **kutu-a(n)* ‘(be) lousy’ (To’aba’ita *ʔu-la*, Samoan *ʔutu-a*, Pukapukan *wutu-a*). Further examples from SES languages show the process applied to other insect names: Sa’a *pote* ‘head louse’, *pote-la* ‘lousy’; To’aba’ita, Lau *wā* ‘maggot, worm’, *wā-la* ‘maggoty, wormy’, and I add a Polynesian example, Tongan *moŋomoŋa-ʔia* ‘infested with beetles or cockroaches’, from *moŋomoŋa* ‘any kind of beetle or cockroach’.

PMP **qulej-an* ‘have worms’ (ACD)

POc **quloc-a(n)* ‘be maggoty’

SES:	Bugotu	<i>ulo-a</i>	‘maggoty’
NCV:	Mota	<i>ulos-a</i>	‘maggoty, full of maggots’
Mic:	Kiribati	<i>(ka) ino-a</i>	‘bring on putrefaction’
Fij:	Bauan	<i>ulo-ulo-a</i>	‘wormy, maggoty’
Pn:	Samoan	<i>ilo-a</i>	‘be maggoty’

Reduplication on verbs serves to indicate frequentative aspect, while its nominal counterpart means ‘full of, lots of *N*’.

PMP **qulej-qulej* ‘lots of worms; crawling with worms, extremely wormy’ (ACD)

POc **qulo-quloc* ‘full of maggots’

PT:	Motu	<i>ulo-ulo</i>	‘maggot’
MM:	Roviana	<i>ul-uloso</i>	‘maggots, when in numbers’
Mic:	Kiribati	<i>ino-ino</i>	‘full of worms, worm-eaten’
Fij:	Bauan	<i>ulo-ulo</i>	‘maggot (diminutive)’

24 Unspecified flying insect

The following set consists of cognates with a range of glosses which can only be subsumed under one generalised reconstruction.

PPn **mū* ‘flying insect’ (POLLEX)

Pn:	Tongan	<i>mū</i>	‘moth’
Pn:	E Futunan	<i>mū-mū</i>	‘dragonfly’
Pn:	Samoa	<i>(seʔe)mū</i>	‘dragonfly’ (<i>seʔe</i> ‘glide’)
Pn:	Rarotongan	<i>mū</i>	‘big reddish moth that flies round lamps at night’
Pn:	Māori	<i>mū</i>	‘insects’
Pn:	Hawaiian	<i>mū</i>	‘general term for insects that eat cloth, wood, plants’

25 Semantic extensions and generalisations

Chapter 8 contains a detailed examination of **manuk* and **manu-manuk*. POc **manuk* evidently had two senses, one restricted, the other extended. The restricted sense was ‘bird’ or more precisely ‘bird + bat’, hence ‘flying vertebrate’. The extended sense was ‘creature’, probably excluding people and things that swam in the sea. In POc, diminutives were regularly formed by reduplication. So **manu-manuk* meant either ‘small flying creature’, or simply ‘small creature’. Beyond that I have only fragments of information to go on as clues to how POc speakers classified their world of insects and other creepy-crawlies. It is likely that most languages had generic terms for butterflies, flies, spiders, hoppers, ants, grubs and so on, although I have been able to reconstruct reliable generic terms for only the first two.

There is some evidence that there were two broader categories in PPn, the flying creatures, **manu-lele* and the crawlers, **manu-totolo*. Rennellese has *manu-manu-gege* ‘flying/jumping creatures’, and *manu-manu-totogo* ‘creeping creatures’, the latter including reptiles other than turtles. Nanumea, a dialect of Tuvalu (Pn), has forms cognate with the Rennellese, *manu lele* ‘bird, flying insect’ and *manu totolo* ‘ground animal e.g. spider, lizard, land mammal’. Niue also has cognate terms but insects are excluded in both: *manu lele* ‘bird, can include flying fox but not flying insects’ and *manu totolo* ‘any walking or crawling creature but not insects’. Speakers of the Hula dialect of Keapara (Papuan Tip) distinguish *manu-manu* ‘flying insect’ and *mani-mani* ‘creeping insect’. According to Fox (1974), Lau (SES) divides the entire animal kingdom three ways, with *wāwā* ‘generic for all creatures in or on the ground’, *manu* ‘generic for all creatures that fly’ and *iʔa* ‘generic for all creatures in water’.

The following example illustrates how one particular term may serve as the name of a class, in this case ‘fly’, and also be used as the first element in binomials defining members of that class. Examples include:

Adm:	Lou	<i>lan-lan(a)</i>	‘fly, flying insect’
		<i>lan-et</i>	‘housefly’
		<i>lan-lana-n palawa</i>	‘honey bee’
		<i>lan-lan nara</i>	‘bluebottle, horsefly, March fly’
NNG:	Sengseng	<i>lan</i>	‘fly’
		<i>laniyuyu</i>	‘hornet with papery nest’
		<i>lanonon</i>	‘insect that makes holes in wood’
MM:	Tolai	<i>lana</i>	‘fly’
		<i>lana bulit</i>	‘bee’ (<i>bulit</i> ‘gum’)
SES:	Gela	<i>lano</i>	‘fly’
		<i>lano mbeli</i>	‘k.o. hover fly’
		<i>lano ni bolo</i>	‘k.o. large fly’ (<i>bolo</i> ‘pig’)
		<i>lano ni uvu</i>	‘k.o. red fly’
		<i>lano pasa-pasa</i>	‘k.o. large fly’ (<i>pasa-pasa</i> ‘to scold’)
		<i>lano vuru</i>	‘large k.o. fly with yellow wings’
		<i>lano</i>	‘common fly’
Pn:	Niuean	<i>lano fufu</i>	‘mason wasp’
		<i>lano meli</i>	‘bee’
		<i>nalo</i>	‘the common housefly and other similar flies’
Pn:	Hawaiian	<i>nalo ?aki</i>	‘small stinging fly’
		<i>nalo hope ?eha</i>	‘hornet’ (lit. ‘fly with stinging posterior’)
		<i>nalo keleawe</i>	‘hover fly’? (lit. ‘brass/copper fly’)
		<i>nalo lawe-lepo</i>	‘mud wasp’ (lit. ‘dirt-toting fly’)
		<i>nalo meli</i>	‘honey bee’
		<i>nalo nahu</i>	‘stinging fly’ (lit. ‘biting fly’)
		<i>nalo paka</i>	‘tick; ensign fly’ (lit. ‘lean fly’)
		<i>nalo pilau</i>	‘bluebottle fly’ (lit. ‘stink fly’)

In some Polynesian languages the reflex of POc **moko* ‘k.o. snake’ (p.260) has become a class marker for a whole range of creepy-crawlies:

Pn:	Niuean	<i>moko</i>	‘insect, grub, caterpillar; lizard, any creeping creature’
		<i>moko elo</i>	‘stink beetle’ (<i>elo</i> ‘to stink’)
		<i>moko manini</i>	‘common brown beetle’ (<i>manini</i> ‘a plant, <i>Physalis angulata</i> ’)
		<i>moko manja</i>	‘earwig’ (<i>manja</i> ‘forked, divided’)
		<i>moko monja-monja</i>	‘cockroach’
		<i>moko niu</i>	‘rhinoceros beetle’ (<i>niu</i> ‘coconut palm’)
		<i>moko tafa</i>	‘black beetle’ (<i>tafa</i> ‘be itchy’)
		<i>moko taliŋa</i>	‘gecko’ (<i>taliŋa</i> ‘ear’)
		<i>moko vā</i>	‘large green mantis’ (<i>vā</i> ‘to mock’?)
		<i>moko</i>	‘k.o. lizard, light-brown in colour’
Pn:	Tongan	<i>moko</i>	

	<i>moko hula</i>	‘earwig’ (<i>hula</i> ‘protuberant’?)	
	<i>moko hunu</i>	‘sea slug’ (<i>hunu</i> ‘to singe’?)	
	<i>moko-moko tuʔaniu</i>	‘mantis, stick insect’ (<i>tuʔaniu</i> ‘midrib of coconut leaflet’)	
	<i>moko tola</i>	‘shellfish’ (<i>tola</i> ‘snout’)	
Pn:	Hawaiian	<i>moʔo</i>	‘lizard, reptile of any kind’
		<i>moʔo huelo-ʔawa</i>	‘scorpion’ (lit. ‘lizard with bitter tail’)
		<i>moʔo niho-ʔawa</i>	‘scorpion, viper, asp’ (lit. ‘lizard with bitter tooth’) (from a Bible translation)

In some Polynesian languages, small lizards and certain other creepy crawlies are lumped together in a higher order taxon. POc **m^wata-m^wata* ‘worm’ is the diminutive of **m^wata* ‘snake’.¹¹ Note also Dobu (PT) *didi m^wana* ‘common earthworms, small lizards’.

Similarities in behaviour form the basis of other groupings. In Tamambo (NCV), the reflex of POc **(ñ,n)opuq* ‘stonefish’ refers to ‘centipede or scorpion’ as well as ‘venomous fish’. The semantic link is clearly ‘painful stinger’. The Polynesian language of Rennell has extended the meaning of *kutu* (from POc **kutu* ‘head louse’) to refer to ‘louse, bird louse, mite, leech and tiny insects of various kinds’. The term has presumably come to mean ‘small blood-sucker’, when no more specific reference is necessary. In Marquesan the reflex of POc **quloc* ‘maggot’, *iʔo*, now refers to bugs and worms.

Some languages have developed and named unusual groupings. For instance, the Motu have a term, *kikiri kikiri*, which refers to ‘all creatures which live on the ground but jump or fly short distances. Cicadas and hawk moths are *kikiri kikiri*. So are beetles that make noise’ (Nigel Oram n.d.). In Kwaio, there is a collective term, *faʔa/fulu*, for edible insects.

26 Stability and variability of terms

A small number of POc insect names show far greater stability than others. In a survey of 25 dictionaries chosen on comprehensiveness and whose languages together covered all major subgroups,¹² reflexes of **kutu* ‘louse’ were listed in 23, **laŋo* ‘fly’ in 22, **ñamuk* ‘mosquito’ in 21, **bebek* ‘butterfly’ in 16, and **qapator* ‘sago grub, edible’ in 13. In an email comment on seahorse terms Robert Blust wrote that ‘The general principle for flora and fauna seems to be that if it was economically useful or dangerous it was named, and the more useful or dangerous the more stable the name historically.’¹³ With insects, it seems that the more intrusive in everyday life, the more commonplace and either pesky or valued they are, the more likely they are to be known by highly stable terms.

In contrast, it seems that unstable terms may be unstable for a variety of reasons. We have a number of instances where it has proved very difficult to make any well-supported reconstructions, and others where two or more reconstructions that differ only very slightly in form have been made for an insect. Examples are:

¹¹ For an account of reduplication in Oceanic languages, see vol.3, ch.2, §7.2.

¹² The languages were Loniū, Lou (Adm), Gedaged, Manam (NNG), Motu (PT), Nakanai, Tolai, Roviana (MM), Bugotu, Gela, Lau, Sa’a, Arosi (SES), Mota, Tamambo, Raga (NCV), Lenakel, Anejoñ (SV), Woleaian, Puluwatese (Mic), Wayan, Bauan (Fij), Tongan, Samoan, Tikopia (Pn).

¹³ Blust’s comment appeared in the AN-LANG list on 8 May 1999.

butterfly	POc *[kau]bebek, *kali-bobo(η), PPT *qara-bembem, Proto NW Solomonian *pepele
mosquito	POc *ñamuk, *simuk
sandfly	POc *niku-niku, *nonok, *ηisi
mason wasp	POc *pupuk, *bubu
wasp	POc *mañipo, *(n,ñ)i(n,ñ)ipo, Proto Central Papuan *naniyo
grasshopper	POc *sak ^w a, *siko; POc *riŋa, PROc *liŋo
ant	POc *druī, *[driu]driu, PWOC *didi
spider	POc *ka(k,g)a, *koko, PWOC *kuku, PEOc *koko-mici

The existence of taboo to limit use of a particular form to a particular area, has already been suggested for ‘butterfly’ in §3, and may explain why this creature can have a name that is very stable in most of the Oceanic region, yet be unstable in parts of Western Oceanic.

Clearly, onomatopoeia plays a role in the naming of the humming and buzzing insects, where there is frequent interchange of *n*, *ñ* and *η*. Examples include POc *ñamuk, PWOC *ηati-ηati both ‘mosquito’, POc *ηiŋi(η) (1) ‘buzz as a mosquito’, (2) ‘mosquito’, *(n,ñ)i(n,ñ)i ‘bee, buzzing insect’.

Irregular patterning of terms for insects has been attributed to the fact that many insects are ‘expressive’ creatures. That is, they are associated with particular characteristics that impinge strongly on the human sensory system and become a significant identifying feature for that insect. Characteristics include sound (crickets, cicadas, the buzzing insects), movement (grasshoppers, butterflies, spiders), ability to sting or bite (mosquitoes, sandflies and other stinging flies, centipedes, scorpions, ants) and possibly other aspects of appearance or behaviour. It has been claimed that it is their ‘expressive’ condition that underlies a tendency for speakers to play phonological games with their names, resulting in irregularities that may then defy reconstruction. This tendency has been observed cross-linguistically by Erik Fudge (1970) in words of certain semantic type including onomatopoeia or movement, and in the names of plants and animals in Balinese and the closely related Javanese by Adrian Clynes (1995:44).

27 The supernatural element

Among my POc reconstructions, those carrying the *kali-/qali- prefix are limited to *[kali]-bobo(η) ‘butterfly’, *qalipan ‘centipede’ and *qali-popot/*(k,q)ali-totop ‘firefly’. Ethnographic evidence from a number of communities indicates that all three creatures retain some supernatural association requiring them to be treated with caution. I also have a number of reconstructions at POc level or lower which may carry the prefix or some trace of it. They include PPn *kālisi ‘cicada, cricket’, a number of ant terms possibly reflecting POc *kal(a,o), two lizard terms, PSOC *qala ‘green lizard, *Emoia* sp.’, PEOc *kalis(i,u) ‘skink, k.o. lizard’ (see ch.5, §5.3.5), and a number of terms for ‘spider’ which carry the prefix *ka-*.¹⁴ However, if my reconstructions do in fact carry a trace of the danger prefix, they have lost what was evidently an essential element of *kali-/qali- words at a stage earlier than POc, that is, conversion from the typical disyllabic base form to a quadrisyllabic one. The prefix had ceased to be productive in POc.

¹⁴ Cf. Blust’s list of creatures marked with the prefix which include, inter alia, grasshopper, gecko, some ant spp. and some spider spp. (2001:37).

Nonetheless, it seems that in Polynesian languages there is a different term which can be used to mark a creature as supernatural. PPn **qatua* (from PMP **qatuan*), often glossed ‘god, deity’, is used primarily to signify that an object, whether human or non-human, has supernatural qualities. In Williams’ Māori dictionary, the definition of *atua* runs ‘god, demon, supernatural being, ghost; object of superstitious regard; anything malign, disagreeable; strange, extraordinary’.¹⁵ Like *qali-/kali-*, its range in Polynesian languages extends to inexplicable phenomena such as rainbows and waterspouts.¹⁶

Examples of its use in Polynesia include Māori *atua-piko* ‘rainbow’ (cf PT: Kilivila *kali-pedoga* ‘rainbow’), Tongan *?otua-kui* ‘whirlwind, waterspout’ (cf MM: Nakanai *kali-vuru* ‘tornado, waterspout’ and MM: Tolai *kali-vuvur* ‘whirlwind’), and a small number of insect terms, Samoan *atua-loa* ‘k.o. centipede with poisonous bite’ (cf POc **qali-pan* ‘centipede’) Māori *pepe atua* ‘northern wattle moth’ (literally ‘supernatural butterfly’) (cf. POc **[kali]bobo(ŋ)* ‘butterfly’) and two Rennellese terms, *?atua segesege ba?e* ‘a large grasshopper’ (lit. ‘leg-cutting supernatural’) and *?atua-seu* ‘large stinging stick insect’ (lit. ‘lame supernatural’).

A detailed account of the way in which *atua* is linked to natural species in one community is given by Firth (1967:233). In Tikopia, as in other Polynesian communities, *atua* applies primarily to a supernatural object, whether human or non-human in form. However, it is applied also to any natural species which should not be eaten. ‘The terms *atua* and *kai* (food) in this connection are in fact mutually exclusive. The [former] applies to small crabs, sea anemones, beche-de-mer and other marine creatures on the reef, as well as to iridescent lizards, spiders and some insects.’ (p.233). He suggests ‘*that the connotation of atua as inedible may be derivative from its significance of supernatural*’ (p.234), (italics mine, MO). He concludes that ‘one point, however, may be stressed with certainty, that any object which is regarded as an *atua* may not be eaten, and anything which is fit for human consumption cannot be in itself an *atua*— though it may ...become temporarily associated with *atua*’ (p.234). Among the creatures he lists as *atua* are two inedible crabs, *kaviki* ‘small pale land crab’ and *karamisi* ‘reddish-brown or yellowish crab, [which] lives in crotch of tree’ (cf PMP **qali-manaw* ‘mangrove crab’). Also *atua* are *moko*, the black lizard, and *morokau*, the centipede. In Tikopia, then, *atua* is not affixed to the names of natural species as it is in other Polynesian communities and in the manner of *qali-/kali-*, but is rather the name of a category.

The association of certain insects with the supernatural has survived from PAn society right through to certain contemporary Polynesian societies. Although the *qali-/kali-* label has evidently lost its force in Oceanic languages, the existence of reflexes of **qatuan* in a similar capacity is a revealing linguistic clue to certain beliefs of POc speakers.

¹⁵ As the breadth of the Māori definition illustrates, the result of the long association of supernatural qualities with certain creatures has led to its interpretation in a number of different ways, not all of them compatible with Blust’s ‘danger: avoid’ message for PMP **qali-*. In Rennellese (Pn), *mogi ?atua* refers to a ‘useless orange’, perhaps an extension of meaning from ‘dangerous’ > ‘poisonous’ > merely ‘inedible’.

¹⁶ Jeff Marck (1994) reconstructs PMic **auniari* ‘whirlwind, waterspout’, based on, among others, Ponapean *einia* ‘whirlwind’, Mortlockese *awúniyar* ‘whirlwind, tornado, rainbow’, Carolinian (*l*)*ayúliyáy* ‘tornado’, Woleaian (*r*)*aúriyaza* ‘rainbow’, Ulithian (*l*)*olyor* ‘rainbow’. He comments: ‘This may be analysable as **auni-ari* ‘atmosphere-of-?’ where **-ari* had some as yet unreconstructed meaning along the lines of ‘troublesome, fearful’ or whatever’ (p.310).

8 *Were turtles fish in Proto Oceanic?* *Semantic reconstruction and change in some terms for animal categories in Oceanic languages*

ANDREW PAWLEY

fish. An animal that inhabits the water. (Samuel Johnson, *English dictionary*, 1755)

The whale, the limpet, the tortoise, and the oyster...as men have been willing to give them all the name of fishes, it is wisest to conform. (Oliver Goldsmith, ca 1760)

1 Introduction

1.1 Aims

This chapter investigates the semantic histories of five Proto Oceanic terms, **ikan*, **pinaŋoda*, **sisiq*, **manuk* and **manu-manuk*, each of which is a candidate for the status of a high-level generic or ‘life form’ in the POC taxonomy of animals.¹ In certain contemporary Oceanic languages reflexes of **ikan* have a range of reference that encompasses fish and other large water-dwelling animals (cetaceans, dugongs, turtles and crocodiles), reflexes of **pinaŋoda* encompass reef invertebrates, or sea animals other than fish and large water-dwelling animals, reflexes of **sisiq* refer to gastropod (snail-like) shellfish, reflexes of **manuk* refer to birds and bats, and reflexes of **manu-manuk* to insects and other creepy-crawlies (spiders, centipedes, worms, etc.). However, in other Oceanic languages these etyma have reflexes with quite different ranges of reference. For example, in some cases the **manuk* reflex includes not just birds and bats but all flying creatures, in others it includes all land-dwelling creatures or all creatures other than humans, in still others it includes humans, and there are

¹ I am indebted to Frank Lichtenberk, John Lynch, Meredith Osmond, Malcolm Ross and Anna Wierzbicka for valuable comments on a draft of this paper, to John Lynch for pointing to additional Vanuatu and New Caledonian comparisons, and to Paul Geraghty, Frank Lichtenberk and the late Nigel Oram, for providing information about the generic terms for ‘fish’ in Standard Fijian, To’aba’ita and Motu, respectively.

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some where it includes all objects. In many languages the *sisiq* reflex refers just to a small class of small gastropods (nerites and similar) while in others it includes all gastropods or all shellfish.

The aim here is to determine, as far as possible, the range of reference of these five terms in POc, their place in the taxonomy, and the nature of the changes that have occurred in daughter languages. The task of reconstructing their semantic histories raises some questions of more general interest: Are the variations in the meanings of major generics across daughter languages random or do they follow an implicational scale, a natural sequence of semantic extension or contraction? Why have such marked differences arisen in the semantic scope of these terms? Can some of the changes be attributed, for example, to differences in the range of animal life encountered by different communities?

1.2 Methodological preliminaries

Before we examine the Oceanic terms in question it is necessary to discuss some issues of method and conceptual framework. The semantics of folk taxonomies is a notoriously tricky domain, not one that one should enter without a map.

A first consideration is the nature of the analytic apparatus needed to make sense of folk taxonomies and the task of choosing between competing frameworks. This leads into questions about how different kinds of classificatory terms differ in their semantic structure and their role in the taxonomy. Another concern, of a more practical kind, relates to which kinds of semantic information, which components of lexical meaning it is feasible to deal with when trying to reconstruct the semantic history of classificatory terms. Finally, there is the problem that most definitions of classificatory terms in Oceanic dictionaries, our main sources of data, suffer from serious shortcomings.

1.2.1 What are taxonomies?

A well-formed taxonomy is a system of semantic relations between lexical units that has the following properties:² (i) Certain taxa stand in a class-inclusion or superordinate-hyponym relation. Thus, the statement *X is a fox terrier* unilaterally entails that *X is a dog*, which in turn entails *X is an animal*. That is, *fox terrier* is a hyponym of *dog*, which in turn is a hyponym of *animal*. (ii) Certain lexical units stand in a relation of incompatibility or contrast. Thus the statement *X is a fox terrier* entails *X is not a labrador, alsatian or poodle*, and the statement *X is a dog* entails *X is not a cat, seal or bear*. (iii) the hyponyms of a term X are *natural kinds of X*. Thus, it can be said that *a fox terrier is a kind of dog* and *a dog is a kind of animal*. A natural kind typically has many defining features (see §1.2.2) but all other features are subordinate to the one that defines its place in the taxonomy, the fact that it is a kind of something (a sparrow is a kind of bird, a dog is a kind of animal, a trout is a kind of fish).

The relation implied by ‘natural kind’ is not identical to ‘class-inclusion’ or ‘hyponymy’. Not all hyponyms are natural kinds. Some are ‘nominal kinds’, e.g. *spinster*, *bachelor*, *mare*, *ewe*, *ram*. Unlike natural kinds, contrasts between nominal kinds can be readily defined, approximately, in an analytic way in terms of just a few features, e.g. *bachelor* = *man who has never married*, *spinster* = *woman who has never married*, *ewe* = *adult female sheep*, *ram* = *adult male sheep*. It follows that the semantic difference between nominal hyponyms

² The discussion that follows draws heavily on Cruse (1986) and Wierzbicka (1984, 1996).

of the same set can be expressed analytically, as e.g. the difference between *bachelor* and *spinster* or *ram* and *ewe*. It is not a dominant feature of nominal terms that they are kinds of something. Although one can say *a spinster is a woman*, *a mare is a horse*, *a ram is a sheep* it is questionable whether it makes sense to say *a spinster is a kind of woman*, *a mare is a kind of horse*, or *a ram is a kind of sheep*.

1.2.2 Defining natural kinds

Natural kinds cannot readily be defined analytically. For example, the difference between *dog* and *bird* cannot be reduced to one or two distinguishing features: the two differ in indefinitely many ways. It is not clear how one should answer a question like: *What is the meaning of dog?* Apart from mentioning that dogs are a kind of animal, should a definition say that they have four legs and a tail, are furry, are carnivorous, bark and howl, have a very keen sense of smell, are pack animals, that people have selectively bred them to create many breeds, and keep them as pets, and for hunting game, rounding up sheep and cattle, and guarding property, that they are not eaten (at least in English-speaking societies), and so on? What about the meaning of ‘bird’? Should a definition mention all and only the universally valid morphological attributes, that birds have feathers and two legs, two wings (some only vestigial) and a beak, and that they lay eggs? Which if any behavioural characteristics should it mention: that birds typically fly (not all do), that they make nests (not all do), that they have diverse calls, that many male and female pairs mate for life, that they are typically wild creatures but some species are domesticated, and so on?

Dictionary-makers typically baulk at the task of defining all the things that may distinguish natural kinds and are content to pick out just a few salient characteristics. For example, *The Macquarie Dictionary* defines *dog*, in its primary sense, as ‘a domesticated carnivore, *Canis familiaris*, bred in a great many varieties’. The definition of *cat* is almost identical, save for the Latin name: ‘a domesticated carnivore, *Felis domestica* (or *F. catus*), widely distributed in a number of breeds’. And dictionary definitions of terms of folk generic and life-form rank largely reflect scientific knowledge, not folk knowledge. *Macquarie* defines *bird* as ‘any of the Aves, a class of warm-blooded vertebrates, having a body more or less completely covered with feathers, and the forelimbs modified so as to form wings by which means most species fly’. As Anna Wierzbicka has repeatedly pointed out, such definitions are quite unsatisfactory as an account of folk knowledge about what these kinds of animals are.

1.2.3 The taxonomic ranks and naming principles proposed by Berlin (1992)

Folk taxonomies must have at least two levels but can have many levels, as indicated by the sequence: *berkshire* > *pig* > *animal* > *creature*, or *pinnacle floribunda* > *floribunda rose* > *rose* > *flower* > *plant*. One way of distinguishing the levels is to refer to them as primary, secondary, tertiary, etc. or as first-order, second-order, third-order, etc.

Instead of speaking of levels in a folk taxonomy in this way, Brent Berlin and his associates propose that taxa at each level be given rank status in a way that broadly parallels the taxonomic ranks of Western biology (Berlin 1992, Berlin et al. 1973). Building on earlier work, Berlin (1992) also specifies some general principles of nomenclature. While the system of naming practices is distinct from the taxonomy, the two are systematically related so that we can often infer the taxonomic relations between particular taxa from the way they

are named. A key nomenclatural distinction is between *uninomials* (or *primary lexemes*) and *binomials* or (*secondary lexemes*). Binomials are multiword names in which one element modifies the head noun, and where the head noun can stand alone as a generic name, e.g. *rock crab*, *mud crab*, *hammerhead shark*, *white- pointer shark*). A uninomial consists of a single morpheme, such as *herring* or *perch*, or a compound or phrase that is idiomatic, such as the type of *hammerhead* or *leatherjacket*, where no element can stand alone as a generic term (there is no category of fish called *head* or *jacket*), or the type of *sea hare*, *sea cow* and *seahorse* (the creatures so named are not a kind of hare, cow or horse).

The following is a summary of the system of rank distinctions in folk taxonomies, and generalisations about nomenclature given in Berlin (1992).

Most taxa belong to one of three ranks: *life form*, *folk generic* or *folk specific*.

Life-form. A life-form is a taxon that (i) distinguishes a distinctive morphotype which (ii) includes many (sometimes hundreds) of lower order taxa which share the characteristic morphology and ecological adaptation of the type, (iii) is not included in any other taxon other than kingdom, and (iv) is named by a uninomial. Examples of English life-form taxa are *fish*, *bird*, *snake*, *tree* and *flower*. The nature of categories that rank as life-forms may vary across speech communities, usually in ways connected with regional differences in flora and fauna and in the ways of life of communities. For example, for people in the central Pacific, shellfish are a much more numerous and more important category than snakes, or even birds, but the reverse is the case in many regions of the world.

Folk generic A folk generic (or folk genus) is a 'natural' category in several senses, one perceptual, the others linguistic. First, the members of this category are usually marked off from non-members by multiple characters of morphology and behaviour or ecological adaptation that will be evident to any close observer. Second, unlike folk species, the category is named by a uninomial rather than a binomial. Examples of English folk generics are *rose*, *oak*, *beech*, *blackbird*, *pig*, *dog*, *frog*, *toad*, *mullet*, *trout*, *whale*, *crocodile*. Third, the folk generic is the usual way of referring to a particular plant or animal if its identity is known. Depending on various factors, a folk genus may correspond to a single species in biological taxonomies, to a number of species or a genus, or to a number of genera or families. Many folk generics are subtaxa of life forms but Berlin recognises a category of unaffiliated generics, first-order taxa that do not belong to any life-form but are not themselves life-forms.

Folk species. A folk genus sometimes further divides into folk species (or folk specifics), usually just a few taxa which contrast in a limited number of features with other members of the generic. Such specifics are usually the lowest-level taxa. Berlin (1992) holds that folk species names usually consist of the generic name plus a modifier, e.g. *red mullet* vs *grey mullet*, or *mako shark* vs *hammerhead shark*. Bulmer (1970, 1974), however, finds that a fair number of animal folk species, among the Kalam people of the New Guinea highlands, are named by primary lexemes (uninomials).

Three other ranks are sometimes distinguished in folk taxonomies.

Kingdom. A single primary (first-order) taxon – one that subsumes all life-form taxa and other taxa in the relevant semantic domain or class. Names for taxa of kingdom rank will be uninomials. For some English speakers, whose perceptions have been influenced by scientific taxonomies, *plant* and *animal* qualify as kingdom rank taxa, subsuming various life forms. In vernacular speech, traditionally, these two terms have narrower meanings. However, in most societies, folk classifications of living things lack overt taxa of kingdom rank.

Intermediate. A taxon which (i) is a member of a life-form (and so is never a first-order taxon) and (ii) comprises a small number of folk generics that show marked similarities to each other and often correspond to botanical or zoological families. If an intermediate taxon has a name, it will be a uninomial. However, Berlin says that intermediate taxa are generally not named, i.e. they are usually ‘covert taxa’, whose unity is indicated by other means than sharing a class name. For some English speakers, horses, zebras and donkeys form such a covert category, as do hawks, falcons and eagles.

Varietal. Under certain conditions, folk species can divide into lower order taxa, contrasting in subtle ways with other varieties. Distinctions between varietal taxa mainly apply to domesticated plants and animals – and so may be motivated mainly by cultural considerations. The names are usually compounds.

For larger animals and some kinds of plants, at the level of the genus and often at the level of the species, the distinctions made by communities living close to nature tend to be similar to those made by Western biologists. The similarities at the genus/species levels are usually explained as follows. These categories are marked by many distinctive features and are as obvious to any close observer of nature as they are to highly trained biologists.

At higher levels the methods and motives underpinning folk and scientific classifications tend to diverge and therefore so do the categories. The higher you go, either in a folk taxonomy or a scientific taxonomy, the less the taxa are likely to conform to ‘natural kinds’. Western biologists aim to capture the evolutionary relationships of organisms, a concern peculiar to science. Ordinary people, on the other hand, impose higher order categories on cultural grounds, be they pragmatic or cosmological. Sometimes the grounds for grouping different kinds of organisms are broad likenesses in form and behaviour. For example, it is fairly common to find a taxon that subsumes both birds and bats, or both fish and whales. In other cases, social factors (e.g. ritual restrictions and taboos) and technological or economic factors (e.g. techniques used to obtain or process foods) peculiar to a society influence the grouping.

1.2.4 Taxonomic generics vs collectives

Wierzbicka (1984, 1996) has advanced methodological objections to certain claims made by anthropologists, linguists and psychologists about the nature and membership of categories in folk taxonomies. She points out that people’s intuitions about category membership can’t reliably be established by asking them simple questions like ‘Is X a kind of Y?’ or by asking them to sort cards with pictures. Instead you need to find out how people talk spontaneously about such matters and to apply a variety of linguistic tests designed to bring out people’s tacit knowledge.³

Wierzbicka has argued persuasively for a distinction between true *generic taxonomic* terms and *collectives*, a distinction that will prove to be relevant to our discussion of Oceanic generics. For her, collectives are not taxonomic terms, at least not in the same sense as true generics. She discusses the properties of English terms like *animal*, *bird*, *fish* and *flower*, in popular speech, that clearly mark them as being ‘super taxonomic categories’, or ‘life forms’. Each of these terms stands for kinds of things that are alike, a category based on perceptual similarities, something you can draw a picture of schematically, something you can count

³ Berlin (1992) and Wierzbicka (1994, 1996) argue strongly against the position taken by some commentators that a hierarchy of kinds is absent from or marginal to folk biological classifications.

individually. She contrasts taxonomic generics with collectives like *livestock*, *game* (*animals*), *fruit*, *grass*, *vegetables*, *cutlery* and *furniture*. Unlike true generics, these don't stand for kinds of things that are alike. A collective is a heterogeneous collection of kinds that share a common function or some other feature(s). Wierzbicka says that you can draw a generalised picture of a fish or bird but not a generalised picture of fruit or cutlery.. One can have an exchange such as *Look at that colourful fish there? – Which one? – The one with yellow stripes*, but *Look at that big livestock there? – Which one? – The brown and white one*, is bizarre. You can't count individual objects using a collective: **I saw one fruit/livestock/furniture/cutlery*. *I saw one fruit* is only acceptable in a more abstract sense: *I saw one kind of fruit*, not in the sense *I saw one individual fruit* (e.g. *one apple*)

This distinction between natural kinds and collectives will prove to be relevant in our discussion of Oceanic generics.

1.2.5 Problems inherent in the semantics of generics

For any generic term, the assumption that there is a single correct definition of its semantic range that can be uncovered by careful research is itself questionable. The fact is that members of a speech community often do not agree completely as to the scope of generics. The kind of variation is of the kind predicted by prototype theory (Rosch 1973, 1975a,b). Generally people agree on the membership of typical members of a class but disagree when it comes to marginal members. The definitions given in dictionaries tend to understate the amount of variation within the speech community.

Consider, for example, English speakers' use of the term *fish*. The *Shorter Oxford English Dictionary* (SOED) makes a sharp distinction between popular and scientific definitions of this term.

Fish 1. In [popular] language, any animal living exclusively in water, including cetaceans, crustaceans, molluscs, etc. In scientific language any vertebrate animal provided with gills throughout life, and cold-blooded: the limbs, if present being modified into fins.

Johnson's definition and Goldsmith's observations, quoted at the head of this chapter, show the prevalence of this popular usage in 18th century England. However, a mere two-way contrast between popular and scientific usage is surely an over-simplification. A survey of several hundred Australian informants shows that while everyone agrees on including prototypical fish there is much variation in regard to what other creatures count as fish. Some English speakers exclude eels, sharks, rays, seahorses and certain other 'atypical' fish from this category while others include whales and dolphins and even crayfish and jellyfish.

A similar problem arises with 'shellfish'. Most English dictionaries give definitions similar to the following, taken from the SOED:

shellfish any animal living in water whose outer covering is a shell, whether testaceous, as an oyster, or crustaceous, as a crab.

The problem here is that for many native speakers of English, especially those who are not from the USA, *shellfish* refers only to edible molluscs with shells and does not include crabs, lobsters and prawns.

A further difficulty is that directly questioning informants about classification – 'Are butterflies a kind of insect?', 'Are eels a kind of fish?' – is likely to yield unreliable answers. While these are legitimate questions there are other, more reliable ways of getting at class membership. One such consists of spontaneous utterances that contain information

about class membership: ‘What a beautiful insect! Is it a beetle?’, ‘Kiwis are strange-looking birds’. Lexical evidence is another valuable source, e.g. is it possible, or usual for a referent to be named by a true binomial expression, consisting of a generic with an identifying modifier: *sulphur-crested cockatoo*, *rock cod*, *oak tree*, *white pine*, *grey wolf*? Unacceptability or unacceptability of particular logical relations is yet another useful test. Thus, *I saw cats and dogs* is an acceptable conjunction in English but *I saw animals and dogs* is not. All English speakers would probably accept *They netted ten fish and a turtle*, while rejecting *They netted ten fish, including two turtles*. But *They netted ten fish and two eels* or *They netted ten fish and two sharks* might yield diverse judgments.

It is important to recognize that speakers often distinguish two or more senses of generic terms, some with narrower reference, others with wider reference. English *animal* is an example. There are some contexts, in popular speech, where *animal* denotes a category that includes, roughly, mammals, four-legged reptiles and frogs but not birds, fish or invertebrates. There are other contexts where it includes all creatures other than humans. And there are still other contexts where it includes humans (‘Humans are different from the rest of the animal kingdom’).

1.2.6 A modest objective

Although I see the merit of Wierzbicka’s argument that definitions of a folk category should try to capture as fully as possible folk perceptions and knowledge about that category, the data to hand for Oceanic languages do not allow us to pursue such an objective (see §1.2.7). My concern with definitions in this chapter is more modest: to find the referential range of a category, the kinds of animals that speakers of a language include in it, where ‘kinds’ can be defined in biological terms (whether this be simply the species, genus, family, etc. recognised by biologists, or features of morphology or behaviour that allow us to identify biological categories, such as a folk taxon that consists of birds and bats).

This objective might seem straightforward enough. But it is not, for reasons outlined in the following section.

1.2.7 Shortcomings of dictionary definitions

For anyone wishing to compare taxonomies of flora and fauna in Oceanic languages a serious problem is the poor quality of definitions provided in dictionaries and other sources. Ideally, the taxonomies of a language should be inferable from information given in the dictionary.⁴

⁴ Almost fifty years ago Conklin (1962: 144) laid down a set of desiderata for dictionaries, especially for the provision of systematic information about folk taxonomies. (Conklin had bilingual dictionaries in mind but the same standards should apply to monolingual dictionaries.) Ideally, a dictionary should provide:

1. consistent marking of each entry as to its status as a lexical unit and taxon, its immediately subordinate taxa and superordinate taxon, and all coordinate taxa included with it in this next higher taxon...;
2. differential marking of translation labels and of definitions;
3. concise indication of distinctive attributes which define categories belonging to analysed lexical sets;
4. systematic cross-referencing to maximal taxa in all major subhierarchies, to referential synonyms, and to all units involved in categoric overlap; and
5. frequent use of structural charts and diagrams.

The definitions we find often betray the fact that the definer has not carefully investigated the range of reference of a term or variations in the way different speakers use that term.

For example, many Oceanic dictionaries give a bare gloss, ‘general term for fish’, or simply ‘fish’, without mentioning which kinds of creatures are included. Such a simple gloss is unhelpful for two reasons. First, the meaning of the English term ‘fish’ is itself imprecise: as noted above, it does not have the same range for all native speakers of English. Second, if a dictionary simply defines term *X* as ‘fish’ we have no assurance that the dictionary-maker has systematically investigated the semantic range of *X*.

A slightly different sort of gap is exemplified by an entry in Dixon’s (1970) dictionary of Dobuan, a Papuan Tip language, which glosses *iyana* as ‘fish, including alligators’. Leaving aside the detail that alligators but not crocodiles are found in New Guinea waters, we are left wondering what else besides fish and crocodiles counts as *iyana*. Lithgow’s dictionary of Muyuw, another Papuan Tip language, is a bit more informative, offering *yin* ‘fish, turtles, crocodiles, but not shellfish’. But again, we are not told whether, say, eels, cetaceans, dugongs, and octopus count as fish.

In the case of major generics, different sources for the same language often offer conflicting definitions. The standard dictionary of Motu (Lister-Turner and Clark 1954) glosses *gwarume* simply as ‘fish’. However, Nigel Oram, who looked into the matter in some detail, obtained a different and narrower definition of this term from his informants, namely ‘fish, excluding sharks, rays, eels, and also excluding cephalopods’ (Oram, field notes). Capell’s (1941) dictionary of Standard Fijian (based on the Bauan dialect of Eastern Fijian) glosses *ika* as ‘fish’, overlooking the fact that the Fijian term has a broader sense that includes turtles, dolphins and whales (P. Geraghty, pers. comm.).

Fox’s (1955) dictionary of Gela (Gela) defines *iga* as a class name for any kind of sea creature: ‘sea creature: fish, mollusc, crayfish, whale, squid, sea anemone, etc.’. However, in his study of Gela fishing the zoologist Simon Foale (1998) distinguishes two uses of *iga*: ‘bony and cartilagenous fish’ vs ‘all fish, whales, dolphins, dugongs, turtles, crocodiles’. Neither definition exactly matches Fox’s. (Foale’s definition of the second, extended sense does not include squid, (shelled) molluscs, crayfish or anemones.) Do such differences reflect variation among informants or less than exhaustive enquiry on the part of the authors, or a bit of both?

A further problem is that dictionaries, quite understandably, seldom provide a corpus of examples showing how a term is used in everyday discourse. Such a corpus would, among other things, help us decide whether a particular term is a true taxonomic generic rather than a collective.

With all these sobering considerations in mind, let us turn to the several POc terms and their reflexes.

2 POc **ikan*

2.1 Introduction

POc **ikan*, roughly glossable as ‘fish’, is an extremely well-supported reconstruction, which continues PAn **Sikan* ‘fish’ and PMP **ikan* ‘fish’ (Blust 1995). What is less clear is what kinds of creatures counted as **ikan* for POc speakers, and/or whether **ikan* had two distinct senses, one with narrower and the other with broader ranges of reference.

Table 8.1 Implicational scale of types that may be included in reflexes of **ikan*

(1)	typical fish
(2)	1 + sharks and rays
(3)	2 + cetaceans (whales, dolphins) and dugongs
(4)	3 + eels
(5)	4+ turtles
(6)	5 + crocodiles
(7)	6 + cephalopods (octopus, squid, etc.)
(8)	7 + decapod crustaceans (crabs, crayfish, prawns and their relatives)
(9)	8 + other aquatic invertebrates (molluscs with shells, sea hares, nudibranchs, echinoderms, sea urchins, sea cucumbers, jellyfish, etc.)

All Oceanic languages have a generic term that can be translated roughly by English ‘fish’ and typically this term is a reflex of POc **ikan*. However, the scope of this generic varies considerably from language to language. A first comparison of definitions across the group indicates that if ‘typical fish’ are taken as the core members of the class, extensions to include other kinds of creatures can be ordered along an implicational scale roughly as in Table 8.1, bearing in mind that while most creatures of types (1-9) occur throughout much of the Pacific, certain animals, such as dugongs and crocodiles, have more restricted ranges.

Thus, the hypothesis is that if a language includes only one other group of animals in the generic for ‘fish’ it will generally be sharks and rays and the next group to be included will usually be cetaceans together with dugongs (if present) and after that will come eels, then turtles, and so on. Let us refer to those generics whose semantic scope is restricted to (1) as ‘grade 1’, those restricted to (2) as ‘grade 2’, and so on.

If this hypothesis were correct it would mean that the definition of Dobuan *iyana* as ‘fish, including alligators’ entails that sharks, rays, eels, cetaceans, turtles and cephalopods are also subsumed under *iyana*. In the same vein, the definition of Muyuw *yin* as ‘fish, turtles, crocodiles, but not shellfish’ implies that eels, cetaceans, dugongs, and octopus count as *yin*.

The following discussion compares dictionary definitions of reflexes of POc **ikan* for various groups of Oceanic languages. These comparisons are generally followed by tables that make the dictionary definitions directly comparable by reformulating them in terms of the presence or absence of particular classes of referents.

2.2 Reflexes of **ikan*

2.2.1 Central Pacific

Relatively detailed definitions of reflexes of **ikan* are available for many Central Pacific languages.

Fijian and Rotuman

Rotuman	<i>i2a</i>	‘fish, turtles, whales, alligators, etc but not crabs or shellfish, etc’
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Wayan (W. Fijian)	<i>ika</i>	(1) 'typical fish, true fish. This category includes sharks, rays and eels. syn. <i>ika dū</i> "true fish"', (2) 'fish, including cetaceans, turtles and, for many speakers, octopus and squid'
	<i>ika-bula</i>	'turtle (generic)'
	<i>ika dū</i>	'the green turtle, <i>Chelonia mydas</i> ' (lit. 'true fish')
Bauan	<i>ika</i>	'fish, including eels, plus turtles, cetaceans, cephalopods' (P. Geraghty pers. comm.)
<i>Polynesian</i>		
Tongan	<i>ika</i>	'fish, turtles, whales but not eels, cuttlefish or jellyfish'
	<i>ika mui</i>	'male turtle'
	<i>ika matu</i>	'tender part of turtle near front paddles'
Niuean	<i>ika</i>	'fish, whales and dolphins'
Niutoputapu	<i>ika</i>	'fish (including eels), turtles, cetaceans, and cephalopods'
Tahitian	<i>iʔa</i>	'fish, porpoise, whale, turtle, octopus'
Hawaiian	<i>iʔa</i>	'fish or any marine animal, e.g. eel, oyster, crab, whale'
Ifira-Mele	<i>ika</i>	'fish, whale, porpoise but not turtles, eels or octopus'
Tikopia	<i>ika</i>	'general category with primary reference to fish but including allied creatures, e.g. turtle, cetaceans'. [turtles are classified both as <i>ika</i> and as <i>paka</i> 'crabs and other shelled creatures']
Rennellese	<i>ika</i>	'fish, turtle'
Samoaan	<i>iʔa</i>	'fish plus turtles and whales (and perhaps others)' (Milner)
		'the general name for fishes (except the bonito), molluscs and crustaceans' (Pratt)
	<i>iʔa-mānu</i>	'whale' (lit. 'floating fish') (Milner)
	<i>iʔa-sā</i>	'turtle' (lit. 'sacred fish') (Milner, Pratt)
	<i>iʔa-vai</i>	(1) 'eel', (2) 'fresh-water fish' (Pratt)
Tokelauan	<i>ika</i>	'fish, turtle'
	<i>ika-fafine</i> ,	'female turtle'
	<i>ika-fua</i>	
	<i>ika-tagā</i>	'male turtle'

The only Central Pacific dictionary that distinguishes between a narrow sense of the **ikan* reflex, including only 'true fish' and a broader sense, including other large marine creatures, is Wayan Fijian. The Wayan dictionary contains these example sentences: *Na sulua na ika ni qwara; ei tam tia ika dū*. 'The octopus is a fish living in holes; it is not a true fish. *Na ika dū ei vakalaulau*. True fish have tails.'

The semantic range exhibited by these definitions is summarised in Table 8.2. Here and in later tables the following conventions are used to indicate whether or not the class of referents listed at the head of each column is included in the meaning: '+' = included, '-' = excluded, '(+)' = there is disagreement among speakers, and/or certain members of the class are included, others excluded, and '?' indicates that sources do not say whether or not the referent is included.

Table 8.2 Semantic range of reflexes of **ikan* in Central Pacific languages

	typical fish	shark, ray	whale, dolphin	eel	turtle	octopus, squid	crusta- cean	shelled mollusc	Grade
Rotuman	+	+	+	+	+	?	–	–	5 or 6
Fijian									
Bauan	+	+	+	+	+	+	–	–	6
Wayan 1.	+	+	+	+	+	(+)	–	–	5 or 6
Wayan 2.	+	+	–	+	–	–	–	–	2, 4
Polynesian									
Tongan	+	+	+	–	+	–	–	–	4
Niuean	+	+	+	?	–	–	–	–	3 or 4
Niuatopu.	+	+	+	+	+	+	–	–	6
Tahitian	+	+	+	+	+	+	–	–	6
Hawaiian	+	+	+	+	?	+	+	+	8
Samoan	+	+	+	?	?	–	–	–	3-5
Tokelauan	+	+	?	?	+	–	–	–	5
Tikopia	+	+	+	–	+	?	–	–	3
Rennellese	+	+	?	?	+	–	–	–	5
Ifira-Mele	+	+	+	–	–	–	–	–	3

Note: Crocodiles or dugongs are not present in Triangle Polynesian or Fijian waters, although they are known to some Polynesian Outlier communities in Melanesia.

Table 8.3 Semantic range of **ikan* in PPn and PCP

	typical fish	shark, ray	whale, dolphin	eel	turtle	octopus, squid	crusta- cean	shelled mollusc	Grade
PPn	+	+	+	?	+	(+)	–	–	5 or 6
PCP	+	+	+	+	+	(+)	–	–	5 or 6

The Polynesian languages cited here agree fairly well in their range of referents. Leaving aside cases where the definition is uninformative on this point, reflexes of **ikan* always include not only typical fish but also sharks, rays and cetaceans. Most (six out of eight) also include turtles. Most (all but one) exclude crustaceans and molluscs with shells. The main area of disagreement concerns eels (three languages include them, three exclude them) and cephalopods (three include them, six exclude them). The most reasonable historical inference is that Proto Polynesian (PPn) **ika* embraced sharks and rays, cetaceans and turtles. The status of eels and cephalopods in the PPn taxonomy is less certain.

Rotuman and the Fijian languages agree in including eels and cephalopods, as well as sharks and rays, cetaceans and turtles, and in excluding crustaceans and molluscs with shells. Table 8.3 proposes likely semantic profiles for PPn and Proto Central Pacific.

2.2.2 Micronesian

Details follow of reflexes of **ikan* in five Micronesian languages for which quite informative definitions are available. The semantic range exhibited by these definitions is summarised in Table 8.4.

Kiribati	<i>ika</i>	'fish: all swimming marine creatures including turtles, dugong, whales and porpoises, but not squid or octopus'
Marshallese	<i>ek</i>	'fish' (Abo et al. 1976) However, in the English-Marshallese finder list, under 'fish', the authors list terms for 'dolphin', 'giant octopus', and 'jellyfish' as well as 'shark', 'eel', but not 'whale' or 'turtle'
Carolinian	<i>ix</i>	'generic term for fish' (Jackson and Marck 1991). However, in the English-Carolinian finder list, under 'fish', the authors list terms for 'porpoise', 'whale', 'octopus', 'sea urchin', 'starfish', 'sea cucumber', as well as 'eel', 'shark' and 'ray', though not 'turtle'
Woleaian	<i>ixar</i>	'fish' (Sohn and Tawerilmang 1976). However, in the English-Woleaian finder list, under 'fish', the authors list terms for 'dolphin', 'whale' as well as 'eel', 'shark' and 'ray', though not 'turtle', 'octopus' or 'squid'.
Puluwatese	<i>yik</i> , <i>yikan</i>	'fish, porpoises and whales but not squid'

Table 8.4 Semantic range of **ikan* in Micronesian languages

	typical fish	shark, ray	whale, dolphin	eel	turtle	octopus, squid	crusta- cean	shelled mollusc	Grade
Kiribati	+	+	+	+	+	—	—	—	5
Marshallese	+	+	+	+	?	+	—	—	4, 6
Carolinian	+	+	+	+	—	+	—	—	4+
Woleaian	+	+	+	+	?	?	—	—	4+
Puluwatese	+	+	+	?	?	—	—	—	3+

Table 8.6 Semantic range of ‘fish’ terms in Vanuatu languages

	typical fish	shark, ray	whale, dolphin	eel	turtle	octopus, squid	crusta- cean	shelled mollusc	Grade
NE Ambae	+	(+)	+	–	–	–	–	–	3
Raga	+	+	+	–	?	–	–	–	3
Anejoñ	+	+	+	+	+	+	+	–	7
Paamese	+	+	+	+	+	+	+	+	8

NE Ambae	<i>iya</i>	‘typical fishes, rays and dolphins, but not sharks and whales (which are grouped together), eels or cephalopods’ (C. Hyslop, pers. comm.)
Raga	<i>ixe</i>	‘fish, including whales and porpoises but not eels, seasnakes, octopus, squid, cuttlefish, jellyfish or balolo worms’
cf. also: Anejoñ	<i>namu</i>	‘fish, including sharks, eels, cetaceans, turtle, octopus and squid, and crustaceans but not molluscs with shells’ (J. Lynch pers. comm.)
Paamese	<i>mesau</i>	(1) ‘fish (syn. <i>ai</i>)’, (2) ‘any sea dweller incl. turtles, dolphins, shellfish’
Tamambo	<i>manji tarusa</i>	‘fish and shellfish’ (<i>manji</i> ‘animal, including fish and birds’, <i>tarusa</i> ‘sea’)

Leaving aside the under-informative Mota and Tamambo definitions, we get Table 8.6.

2.2.5 The Admiralties

Definitions are given for **ikan* reflexes in four Admiralties languages. The initial *n-* they show is a reduced form of the POc article **na*, which has fused with the following noun.

Titan	<i>nii</i>	(1) ‘fish’ (2) ‘fish, porpoise, dugong, turtle, crocodile’
Lenkau	<i>nik</i>	‘fish, excluding porpoise, whale, turtle, crocodile’
Penchal	<i>nii</i>	(1) ‘fish’ (2) ‘fish, turtle, porpoise, whale, octopus’
Loniū	<i>ni</i>	‘general term for fish’

Discarding the Loniū definition as under-informative, we get the comparative breakdown in Table 8.7. It can be seen that the definitions for Titan and Penchal agree in including sharks, rays, cetaceans and turtles, but disagree over cephalopods.

Table 8.7 Semantic range of **ikan* in Admiralties languages

	typical fish	shark, ray	whale, dolphin	eel	turtle	croc- odile	octopus, squid	crusta- cean	shelled mollusc	Grade
Titan	+	+	+	(+)	+	+	—	—	—	6
Lenkau	+	+	—	(+)	—	—	—	—	—	2, 4
Penchal	+	+	+	(+)	+	—	+	—	—	5, 7

2.2.6 Western Oceanic

Of the Western Oceanic reflexes that follow, only the definitions for Kilivila, Muyuw and Motu are reasonably informative. The latter are all Papuan Tip languages. It can be seen from Table 8.8 that two of the three Papuan Tip witnesses agree in including sharks, rays, eels and crocodiles but disagree over cetaceans and turtles.

North New Guinea

Manam	<i>ika</i>	‘fish’
Yabem	<i>i</i>	‘fish’

Papuan Tip

Dobuan	<i>iyana</i>	‘fish, including alligators’
Kilivila	<i>yena</i>	‘fish, including sharks, rays and eels, but excluding aquatic mammals, turtles or cephalopods’
Molima	<i>iyana</i>	‘fish’
Muyuw	<i>yin</i>	‘fish, turtles, crocodiles, but not shellfish’

cf. also:

Motu *g^warume* ‘fish, excluding sharks, rays, eels and also cephalopods’
(N. Oram field notes)

Meso-Melanesian

Tolai	<i>en</i>	‘fish’
Nakanai	<i>ia</i>	‘fish’
Roviana	<i>iyana</i>	‘generic name for fish’

Table 8.8 Semantic range of **ikan* in Papuan Tip languages

[illegible]

2.3 Proto Oceanic **ikan* 1 and **ikan* 2

There is reason to think that POc **ikan* was polysemous, having a narrower sense, roughly ‘typical fish’ and a broader sense, which included various other aquatic animals. Among our sources, such a distinction is made in just a few contemporary languages (chiefly Wayan Fijian, Gela and Lau of SE Solomonic, and Titan and Penchal of the Admiralties) but it is also tacitly present in the descriptions of certain Micronesian languages.

As to a broader sense, if only the more detailed dictionary definitions are considered, we find that in a high proportion of languages across different major subgroups the reflex of **ikan* refers to sharks and rays, eels, cetaceans and turtles, and also to dugongs and crocodiles in places where these animals are present. I conclude that this was also the case in POc; that is, **ikan* had at least grade 5 scope. Turtles *were* ‘fish’ in POc. The status of octopus and squid is less clear. Other kinds of water-dwelling invertebrates, such as molluscs in shells and crustaceans, have much weaker claims for inclusion. The balance of the evidence suggests that while free swimming creatures with bones were **ikan*, invertebrates that crawl, burrow or stick to rocks probably weren’t. However, in a few languages (Lau, Gela, Marovo) the scope of **ikan* has been widened to include all free swimming sea creatures. In Lau and Gela it may be extended to all marine (and presumably freshwater) creatures (grade 7), although different sources are in conflict on this point. We must allow that in some Oceanic languages the semantic range of **ikan* has reduced to grade 4, 3 or 2.

The data loosely support the implicational scale given in Table 1. Some simplifications may be in order. For example, among languages spoken where both crocodiles and turtles are common, no language is known to include turtles but to exclude crocodiles or vice versa. Thus, categories 6 and 7 can perhaps be merged. Only one language in the sample, Anejoñ, includes crustaceans but excludes shelled molluscs, so an argument can be made for merging categories 8 and 9. However, we have little information about the status of other marine invertebrates included in category 9, such as jellyfish and sea hares.

Why do speakers of various Oceanic languages (like people in many other places) place certain other kinds of animals in the same class as typical fish? Most likely the reasons were diverse. Some non-fish creatures look and behave rather like fish, e.g. whales, dolphins and dugongs to some extent resemble fish in the way they swim and in being completely aquatic. But what about turtles? Apart from being free-swimming bony animals that spend a lot of time at sea, turtles do not look or behave like fish. What they have in common with certain fish, perhaps, is that everywhere in the Pacific turtles are prized game, caught at sea. That leaves crocodiles, which resemble sharks in being fearsome creatures but otherwise share little in common with fish or turtles other than being free-swimming bony creatures.

At any rate, the two senses of **ikan* reflexes pose a problem for Berlin’s system of taxonomic ranks. If the ‘typical fish’ category counts as a life form, what is the status of extended categories such as ‘all water creatures’ or ‘all creatures that are free-swimming’ or ‘typical fish, eels, cetaceans, turtles and crocodiles’? Clearly, categories that contain creatures of such diverse appearance do not fit well with Berlin’s requirement (§1.2.3) that members of the same life form taxon share a distinctive morphotype or with Wierzbicka’s analogous requirement (§1.2.4) that one should be able to draw a generalized picture of the type. In order

to convince Wierzbicka that in a language L, the extended sense of **ikan* reflexes, encompassing turtles, crocodiles, dolphins, etc., is a true major generic in the same way that the narrower, sense applying to ‘typical fish’ is, we would have to show that speakers of L use the extended generic not just as a collective but also to refer to individual turtles, crocodiles and dolphins, e.g. ‘See that *ikan* there. It’s a turtle.’ and ‘We caught ten *ikan* and two of them were turtles.’ Unfortunately, this kind of data is almost completely lacking for the languages in our sample.

3 POc **pinanoda*

More light might be shed on the scope of POc **ikan* if it could be shown to contrast with another generic having a complementary meaning. There is a candidate. Clark (1991) provides an insightful reconstruction of the history of a POc term, **pinanoda*, that referred to a class of sea creatures that evidently stood in contrast to **ikan*. The following discussion is based largely on his account.

Dictionaries of some Polynesian languages explicitly mention a two-way contrast between a reflex of PPn **ika*, denoting fish and other large aquatic vertebrates such as dolphins and turtles and a term, reflecting PPn **fiηota*, that denotes forms of sea life other than **ika*, but especially molluscs and other invertebrates found on the reef. Compare, for example, the Tongan and Samoan entries in the following comparison:

Polynesian

Tongan	<i>fiηota</i>	‘sea creature other than <i>ika</i> (fish, turtles, etc.) especially shellfish, but also crustaceans, cephalopods, jellyfish, eels, sea-snakes, sea cucumbers, starfish, seaweed’
Samoan	<i>fiiηota</i>	‘general term for sea animals except fish, cetaceans and turtles, especially molluscs, crustaceans, echinoderms and sea cucumbers’
Niuatoputapu	<i>fiηota</i>	‘shelled marine animals that creep or crawl: crustacea, molluscs and echinoderms’
East Futuna	<i>fiηota</i>	‘coquillage’ [molluscs with external shells]
Tokelauan	<i>fiiηota</i>	‘general term for shellfish’
Ifira-Mele	<i>fiηota</i>	‘shellfish’ [molluscs with external shells]
Takuu	<i>fiinota</i>	‘various types of shellfish and seafoods gathered by women’

Cognates outside Polynesian are scarce, except in Papuan Tip languages. In the following, *g* for POc **η* in Dobuan and Molima is unexpected (but regular in Kilivila).

Papuan Tip

Dobuan	<i>igoda</i>	‘shellfish’
	<i>igo-igoda</i>	‘any inedible shellfish’
	<i>lo-igoda</i>	‘to gather shellfish’
Molima	<i>igoda</i>	‘to collect shellfish’
Kilivila	<i>vigoda</i>	‘shellfish (live, or shell only)’

A problem with many of these definitions is that for some English speakers the term ‘shellfish’ refers only to molluscs with shells while for others it also includes crustaceans. There is reason to think that the authors of the dictionary definitions cited here generally had in the mind the former, narrower definition.⁵

Clark argues convincingly that PPn **fiŋota* and Papuan Tip *vigoda*, *igoda* are reductions of POc **p-in-aŋoda*, the nominalization of a verb, **paŋoda*, by means of a well-attested nominalising infix **-in-*.⁶ The primary sense of **paŋoda* was ‘to gather seafood (other than fish) on the reef’ with the additional sense ‘to fish, catch fish’. This verb is widely attested in Oceanic. Selected examples are given below. In some witnesses, especially in Western Oceanic, POc **ŋ* is unexpectedly reflected as a stop, *g*.

Meso-Melanesian

Teop *yagana* ‘to fish, (N) fishing’

SE Solomonic

Bugotu *vaŋoda* ‘hunt for shellfish on the reef’

Gela *vaŋoda* (1) ‘collect food on the reef’, (2) ‘anything of the reef: starfish, crab, octopus, sea egg’, (3) ‘shell of mollusk or crab’, (4) ‘gatherer of reef food’, (5) ‘fisher’

Micronesian

Marshallese *yaged* ‘go fishing’

North and Central Vanuatu

Mota *vaŋona* (v) ‘catch fish with a line, get shellfish’, (v) ‘things got to eat on the reef or by fishing, things for a relish to go with vegetable food’

Namakir *ba-vaŋot* ‘to fish’

Nguna *pa-vaŋoda* ‘to fish, to gather shells’

Paamese *vaŋor* ‘gather shellfish on reef’

Anejoŋ *(a)haŋej* ‘forage on the reef’

Central Pacific

Rotuman *haŋota* ‘to fish, fishing excursion, shoal of certain fish’

Polynesian

Tongan *faaŋota* ‘to fish or search for any kind of *fiŋota*’

Niuean *faŋota* ‘gather shellfish on the reef’

Samoan *faaŋota* ‘to fish; fishing’

Rennellese *haŋota* ‘to fish or gather shells, especially by women on the reef’

⁵ One reason is that the authors of the dictionaries concerned are from Australia and NZ, where most people understand shellfish to refer just to molluscs with shells (Pawley 2004).

⁶ **paŋoda*, in turn, was probably diachronically a morphologically complex verb, reflecting the PMP prefix **paN-* ‘actor focus verb derivative’ plus a root, where **N* represents a nasal consonant whose point of articulation was homorganic with and replaced the initial consonant of the root. Compare POc **kan-i* ‘to eat sth.’ and **paŋ-an* ‘to eat (INTR)’ and other examples in Ross (1998:29-30). This suggests that **paŋoda* was an intransitive verb, one that referred to the general act of gathering seafood on the reef but could not be used to single out particular things gathered. The root in this verb was most likely POc **koda* or **qoda* ‘(v) eat raw seafood (flesh of fish or molluscs)’, ‘(N) raw seafood’ (Geraghty 1983, Lichtenberk 1994), with PMP antecedent **qe(n)taq* (Blust 1972).

A few languages retain a reflex of **pinagoda* in which the infix is transparently preserved.

Meso-Melanesian

Tolai *winagonoi* ‘generic name for sea-shells’

North and Central Vanuatu

Nguna *vinagoda* ‘shell, shellfish’

Can we conclude that POc **pinagoda* was a major generic, a life-form of the same rank as **ikan*? Almost certainly not. Clark concludes that **pinagoda* was probably not a biological taxon in the strict sense but a collective, a term for a diverse category of things, namely ‘seafood gathered on the reef’ in which shellfish, i.e. molluscs, were the focal members. Unfortunately, sources for contemporary Oceanic languages seldom provide discourse examples to show how speakers talk about reflexes of **pinagoda*. Whenever examples are given they show the noun being used to refer to a non-specific entity, an undifferentiated collectivity. Given the heterogeneity of the types of edibles subsumed under this term it would be surprising if it behaves, grammatically, as anything other than a collective.

Clark remarks that in some contemporary Oceanic languages **pinagoda* reflexes appear to have become a biotaxon, specifically a generic for shellfish. This has happened in at least two Polynesian languages (East Futunan and Tokelauan), one Vanuatu language (Nguna), and two Papuan Tip languages (Dobuan and Kilivila). However, as sources do not give examples showing how speakers of these languages use the shellfish generic we cannot be sure whether is a genuine life-form taxon or a collective.

4 POc **sisiq*

Oceanic speech communities that have access to reefs and beaches typically distinguish many kinds of molluscs. Speakers of Wayan Fijian, for example, have approximately 140 names for kinds of bivalve and gastropod shellfish, of which about 100 are gastropods. This is a domain, then, where one might expect to find one or more high-order taxonomic categories in Oceanic languages, a point made by Clark (1981).

We have already seen that a reflex of **pinagoda* ‘seafood gathered on the reef’ has developed into a generic for shellfish in Dobuan, Kilivila, Tolai and Nguna, as well as in certain Polynesian languages. Clark (1981:268, 1991:79) also cites, as Polynesian examples of a generic that encompassed both bivalves and gastropods, Marquesan (Ua Pou dialect) *puukava*, Tahitian *puu* and *puupuu*, Rennellese *hatu ?atua*, and East Futuna and Tokelauan *figota*.

However, no widespread cognate set has been found that consistently serves as a general name for shellfish. In fact, most Oceanic languages do not have such a taxon. It is more common to find a generic that refers to edible gastropods, or at least to a large class of edible gastropods, and a generic that refers to a large class of bivalves. But, once again, hardly any such terms have widespread cognates.

Takia	<i>sisei</i>	‘generic term for all varieties of sea shells’
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Dobuan *sisi-yara* 'a bivalve, *Asaphis dichtoma*'

sisi-we 'common whelk'

Molima *sisi-palo* ‘a brown bivalve, small and edible, found in tidal flats’

Motu *dudu* ‘name of a shellfish’ (**i* > *u* unexpected)

Sinaugoro *dudu* ‘cone shell’ (**i* > *u* unexpected)

Nakanai *e-sisi* ‘a shellfish’

Roviana	<i>sise</i>	‘general name for a number of small shells’
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'Are'are *sisi* 'a shellfish'

sisi- 'first element in compound names for certain molluscs, e.g. *sisi-nanara*, *sisi-nikau*'

Arosi	<i>sisi-</i>	'first element in compound names for certain molluscs, e.g. <i>sisi-apir</i> 'limpet', <i>sisi-nahu</i> 'small gastropod sp. in streams'
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To'aba'ita	<i>sisi-</i>	'first element in compound names for a few mollusk species, e.g. <i>sisi-afufu</i> , <i>sisi-peiria</i>
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Lau *sisi-afufu* 'mollusc sp.'

Gela *hihi-vuhi* 'freshwater snail sp., *Nerita brevispina*'

Tolomako *sise, sisi* ‘shellfish’ (scope uncertain)

Mota	<i>sese</i>	‘a smooth shell, turris; in which the <i>gatou</i> ‘hermit crab’ lives
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NE Ambae *hihe* 'Nerita sp.'

Raga *hiha* 'sea snail, winkle'

Uripiv (na)ses ‘periwinkle (?)’

SE Ambrym *ses* 'shellfish of family Neritidae'

Nakanamanga *siisa* 'snail, incl. nerites (*sisa karo*)'

sususa 'maculated moon snail, periwinkles, mitres'

S Efate *ses* 'nerite'

Cèmuhî	<i>ti</i>	‘generic term for gastropods’
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Fwâi	<i>thik</i>	‘trochus, but used generically for gastropods’
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Nemi	<i>tʰik</i>	‘trochus, but used generically for gastropods’
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⁷ The sole internal Oceanic evidence for reconstructing final **q* resides in New Caledonian reflexes. North and Central Vanuatu languages often reflect **siseq* and a few point to **sisaq*.

Fijian and Rotuman

Bauan	<i>siōi</i>	(1) ‘ <i>Trochus</i> spp.,’ (2) ‘first element in various compounds naming kinds of gastropods and a few bivalves’
Wayan	<i>ōiōi</i>	(1) ‘Generic for (i) gastropod molluscs (Gastropoda) with external shells, i.e. univalve or snail-like shellfish and (ii) chitons (Amphineura) and rock oysters, which resemble typical gastropods in that they stick to rocks and/or that the shell is not hinged.’ (2) ‘In a limited range of contexts, a generic for all molluscs with external shells’
Rotuman	<i>sisi</i>	‘edible shell-fish, the periwinkle’

Polynesian

Niuean	<i>hihi</i>	‘snail (generic), usu. first element in compound names for certain gastropods’, e.g. <i>hihi Afelika</i> , ‘African snail’, <i>hihi tea</i> ‘a seasnail’
Hawaiian	<i>hihii/wai</i>	‘grainy snail, <i>Neritina</i> , in both fresh and brackish water, eaten’
Samoan	<i>sisi</i>	‘name given to small snails in general’ (Milner); ‘fresh-water molluscs’ (Pratt) ⁸
	<i>sisi-tai</i>	‘saltwater winkles’ (Pratt)
	<i>sisi-vai</i>	‘freshwater molluscs’ (Pratt)
	<i>sisi-vao</i>	‘landsnails’
Futunan	<i>sisi</i>	‘small shellfish spp., Neritidae and Naticidae’
Uvean	<i>hihi</i>	‘kind of shellfish, Janthinidae and Neritidae’
Tikopia	<i>sisi</i>	‘marine and land snails incl. <i>Melampus</i> and <i>Nerita</i> spp.’
Mere-Ifira	<i>sisi</i>	‘small snail (nerites and others of similar shape)’
Rennellese	<i>sisi</i>	‘edible nerite shells’
Nukuoro	<i>sisi</i>	‘mollusc, Neritidae spp.’

The semantic range of these terms may be arranged in a scale as shown in Table 8.9. The semantic ranges of reflexes of **sisiq* in better documented Oceanic languages are shown in Table 8.10.

Has **sisiq* expanded its range of reference from domains (1) or (2), or did it already have wider scope in POc? Was it already polysemous in POc, with both a broad and a narrow application?⁹

About 50 families of gastropods or snail-like molluscs, comprising hundreds of genera, are found in the Indo-Pacific region. In almost all languages where the dictionary definitions

⁸ Pratt lists several compounds that refer to subtaxa of *sisi*: *sisi-loaloe*, *sisi-mataivi*, *sisi-tānoa*, *sisi-tui*.

⁹ For Proto Malayo-Polynesian Blust (1995) has reconstructed the doublets **sisi* and **sisiq* ‘edible snail’, citing reflexes in two Philippines languages (Bikol *sisi* ‘barnacles’, Cebuano *sisi* ‘small oysters’), one Borneo language (Murik *isi* ‘snail’) and five Oceanic languages, all from Central Pacific. He reconstructs a further doublet **sisuq* ‘edible snail’, citing reflexes in Sasak *siso* ‘snail’ and Makassarese *siso* ‘small mollusk found in fish ponds’.

Table 8.9 Implicational scale of types that may be included in reflexes of **sisiq*

(1)	one or two species of edible molluscs, sometimes a gastropod, sometimes a bivalve, sometimes unidentified
(2)	Nerites (Neritidae), small snail-like shells, with large body whorls)
(3)	two or more of several several groups of edible small globular gastropods (Neritidae and also Naticidae or moon shells (small, globular and smooth), Littorinidae or periwinkles (small, heavy shells, with only a few whorls, globular, spiral or turbinate in shape)
(4)	all edible gastropods
(5)	all molluscs with shells

Table 8.10 Semantic range of reflexes of **sisiq* in Oceanic languages

	a few spp. of molluscs	nerites	small globular gastropods: nerites, moon shells, periwinkles, etc.	all edible gastropods	all edible molluscs	Grade
Takia	+	+	+	+	+	5
Wayan	+	+	+	+	(+)	4-5
Cèmuhî	+	+	+	+	—	4
Samoa	+	+	+	+	—	4
'Are'are	+	+	+	+	—	4
Fwâi	+	+	+	+	—	4
Futuna	+	+	+	—	—	3
E Uvean	+	+	+	—	—	3
Tikopia	+	+	+	—	—	3
Niuean	+	+	?	—	—	3 ?
Rennellese	+	+	—	—	—	2
Nukuoro	+	+	—	—	—	2
NE Ambae	+	+	—	—	—	2
S Efate	+	+	—	—	—	2
SE Ambrym	+	—	—	—	—	1
Gela	+	—	—	—	—	1
Hawaiian	+	—	—	—	—	1

specify particular families or genera, these refer to nerites (members of the family Neritidae) and to other fairly similar groups of small edible marine gastropods (grade 3). In many Oceanic-speaking communities such small shellfish are regularly collected in large quantities and often they supply a more significant part of the protein consumption than any other gastropods. This, then, may have been its primary sense in POc.

POc **sisiq* certainly referred to a class of snail-like (gastropod) molluscs but, given the very spotty data, it is difficult to determine the range of reference of this term. However, the fact that **sisiq* reflexes are widely preserved as the first element in binominals, even in languages where a reflex of **sisiq* no longer occurs by itself, indicates that it was a generic of some sort in Oceanic, participating in a number of binominals.

There is some evidence that **sisiq* also served as a high-order generic, perhaps denoting all gastropods, or all edible gastropods. It was noted above that reflexes of **sisiq* denoting edible marine gastropods in general occur in at least one language in each of the following subgroups: North New Guinea, SE Solomonic, New Caledonian, Fijian and Polynesian. It is likely that there are other cases – our sample is very limited. However, in only two languages in the sample do **sisiq* reflexes also serve as a generic for shelled molluscs in general, including bivalves. Thus, there is no good evidence at present for attributing this last, much wider range of reference to POc **sisiq*.

5 POc **manuk*

5.1 Introduction

POc **manuk* is a well attested form whose semantic range certainly included birds in general, but whose reflexes often have a broader scope. The implicational scale in Table 8.11, going from the most restricted domain to the most inclusive, predicts fairly well the kinds of variations in range seen among **manuk* reflexes.

Table 8.11 Implicational scale of types that may be included in reflexes of **manuk*

(1)	birds and bats
(2)	birds, bats and flying insects
(3)	all land animals
(4)	all animals except humans
(5)	all beings
(6)	all objects

5.2 Variation in semantic scope of reflexes of **manuk*

5.2.1 Polynesian

Tongan	<i>manu</i>	‘animal, esp. bird but applied also to quadrupeds, reptiles, insects, and other land creatures but not to fish, shell-fish, and other sea creatures’. (Also <i>manu-puna</i> ‘bird or bat’; lit. ‘flying <i>manu</i> ’)
Niuean	<i>manu</i>	‘any living creature except humans and fish’ (Also <i>manu-lele</i> ‘bird and bat but not insects; lit. ‘flying <i>manu</i> ’)
Māori	<i>manu</i>	‘bird’
Tahitian	<i>manu</i>	(1) ‘bird + flying insects’ (2) ‘land animal as opposed to <i>i?a</i> ’
	<i>manu-manu</i>	‘insects’ [probably in vernacular sense, including arthropods]
Hawaiian	<i>manu</i>	‘bird, any winged creature’
Rarotongan	<i>manu</i>	‘creature, living thing, usually but not always bird; often used figuratively for a human being’ (also <i>manu-rere</i> , <i>manu-reva</i> ‘bird’, <i>manu vaevae?ā</i> , lit. ‘four legged animal’) and <i>manumanu</i> ‘insects, small flies’)
Samoan	<i>manu</i>	(1) ‘bird’ (also <i>manu-lele</i> ‘bird’) (Milner) (2) ‘animal, beast’ (Milner) (3) ‘any living thing’ (Utugagana)
Tokelauan	<i>manu</i>	(1) ‘animal, beast’ (2) ‘bird’
Futunan	<i>manu</i>	‘animal in general’; <i>manu-lele</i> ‘bird’ (lit. ‘flying animal’)
Uvea	<i>manu</i>	‘animals in general’; <i>manu-lele</i> ‘bird’
Ifira-Mele	<i>manu</i>	‘bird, bat (and possibly butterflies)’
Tikopia	<i>manu</i>	‘terrestrial creatures: mammals, birds, arthropods, but excluding marine creatures’
Rennellese	<i>manu</i>	‘land fauna except human beings, turtles and fish (incl. birds and flying insects)’ (also <i>manu-gege</i> ‘birds and flying insects’)
Nukuoro	<i>manu</i>	‘living things in general’

The semantic range of these terms may be arranged in a scale as shown in Table 8.12.

This distribution of meanings suggests that PPn **manu* had a narrow sense ‘birds and bats’ (with synonym **manu-lele*), and an extended sense, roughly ‘all land animals other than humans’. Among the languages cited above, Niuean and Tongan (Tongic), Rarotongan and Tahitian (Eastern Polynesian), Rennellese, Samoan, Tokelauan and Tikopian (non-Eastern Nuclear Polynesian) have an extended sense.

In Futunan, Uvean, (and occasionally) Rarotongan, *manu* can be extended to all creatures other than humans and in Nukuoro that seems to be the standard meaning. This more extended use has a restricted distribution in contemporary Polynesian languages and was probably not present, or was rare, in PPn.

Cecil Brown, in a paper on the development of life form taxa in Polynesian languages, expresses doubts about the two-sense reconstruction. He concludes (Brown 1981:94) that ‘bird’

Table 8.12 Semantic range of reflexes of POc **manuk* in some Polynesian languages

		1	2	3	4	5	6	
		birds and bats	birds, flying insects	all land animals	all animals except humans	all beings including humans	all things	Grade
Nukuoro		+	+	+	+	+	–	5
Rarotongan		+	+	+	+	+	–	5
Tikopia		+	+	+	+	–	–	4
Tongan		+	+	+	–	–	–	3
Niuean		+	+	+	–	–	–	3
Samoan	1.	+	–	–	–	–	–	1
	2.	+	?	+	?	–	–	3
Tokelauan	1.	+	–	–	–	–	–	1
	2.	+	?	+	?	–	–	3
Tahitian	1.	+	+	–	–	–	–	2
	2.	+	+	+	–	–	–	3
Rennellese		+	+	+	–	–	–	3
Ifira-Mele		+	+	(+)	–	–	–	3 ?
Tahitian		+	+	+	–	–	–	3
Māori		+	–	–	–	–	–	1

probably ‘constituted the primary, if not the only zoological reference’ of PPn **manu*. If I understand him correctly, Brown prefers to interpret the fact that Tongan, Niuean, Samoan, Tikopia, Rennellese, Rarotongan, etc. agree in having a second, wider sense of **manu*, as the result of semantic extensions made independently several times in the history of the Polynesian languages. He points out the importance of ecological factors. While birds must have been very prominent creatures in all the islands of the Pacific, most of the islands settled by Polynesians would have had very few land animals other than birds and small invertebrates. All had lizards, a very few had snakes, otherwise there were only those animals brought by humans: rats, dogs and (sometimes) pigs. When, in the post-European contact era, new quadrupeds (such as cattle, horses and goats) arrived it would have been natural to extend the reflex of **manu* to these.

However, it seems to me more likely that **manu* was already polysemous in PPn. The evidence indicating that PPn had a synonym for **manu* in its narrower sense, namely the compound **manu-lele* ‘birds, bats, flying insects’ (lit. ‘flying *manu*’) is consistent with the view that **manu* had two senses in PPn. The evidence from Fijian and Rotuman (see below) also supports a polysemous reconstruction. Be that as it may, there can be little doubt that in the Polynesian languages ecological factors have motivated both extensions and contractions in the semantic range of reflexes of POc **manuk*.

Table 8.13 Semantic range of reflexes of PCP **manu-manu* in Rotuman and Fijian languages

		1	2	3	4	5	6	Grade
		birds and bats	birds, flying insects	all land animals	all animals except humans	all beings including humans	all things	
Rotuman		+	+	+	+	–	–	4
Bauan	1.	+	+	+	?	–	–	3
	2.	+	–	–	–	–	–	1
Wayan	1.	+	+	+	+	–	–	4
	2.	+	+	+	–	–	–	3

5.2.2 Rotuman and Fijian

Rotuman and the Fijian languages reflect only a reduplicated form **manu-manu*. In Rotuman this term denotes land animals other than humans. In Wayan it denotes all creatures. In Bauan its narrower sense refers to birds and its wider sense includes all creatures. In all three languages a compound consisting of a reflex of **manu-manu* plus a verb/adjective meaning ‘to fly, flying’ is used to distinguish birds and other flying animals from terrestrial animals.

Rotuman	<i>mən-mənu</i>	‘bird, insect, animal, including all land and air creatures but no sea creature’ (also <i>mənmənu ferfere</i> ‘bird, flying insect’)
Bauan	<i>manu-manu</i>	(1) ‘bird’ (2) ‘sometimes also animal, insect’ (also <i>manumanu vuka</i> ‘bird’ (lit. ‘flying animal’)
Wayan	<i>manu-manu</i>	(1) ‘animal, creature, being, normally excluding human beings’ (also <i>manumanu ḍavu</i> ‘bird’, lit. ‘flying animal’) (2) ‘sometimes used to denote land animals in contrast to marine animals, such as <i>ika</i> , fish and fish-like creatures’

5.2.3 Micronesian

Kiribati	<i>man</i>	‘animal (including fish), beast, insect, etc.’; ‘numeral classifier for people and animals’
Puluwatese	<i>maan</i>	‘creature, being, animal, insect’
Carolinian	<i>maal, maan</i> <i>-mal</i>	‘generic term for any living creature except humans’, ‘counting classifier for people and animals’
Chuukese	<i>maan</i>	‘living creature of land or air, other than human’
Woleaian	<i>mal</i>	(1) ‘animal, bird, animate object’, (2) ‘thing, inanimate object’

Table 8.14 Semantic range of reflexes of POc **manuk* in some Micronesian languages

	1	2	3	4	5	6	Grade
	birds and bats	birds, flying insects	all land animals	all animals except humans	all beings including humans	all things	
Marshallese	+	+	+	+	+	+	6
Woleia	+	+	+	+	+	+	6
Kiribati	+	+	+	+	+	–	5
Puluwat	+	+	+	+	+	–	5
Chuukese	+	+	+	+	–	–	4
Mokilese	+	+	+	+	–	–	4

		(these are listed as homonyms by Sohn and Tawerilmang 1976; note also <i>mal</i> ‘numeral classifier for animate beings including humans’)
Mokilese	<i>mahn</i>	‘mammal, fruit bat, lizard, monitor, worm, bug, bird’
Marshallese	<i>men</i>	‘thing’
	<i>men-in-mour</i>	‘animal, living thing’ (from <i>men</i> ‘thing’, <i>-in-</i> ‘of’, <i>mour</i> ‘life’)

It can be seen that in this sample of Nuclear Micronesian languages most reflect POc **manuk* with range of reference much broader than ‘bird’. In Kiribati and Mokilese the meaning is approximately ‘land animals other than humans’. In Carolinian and Woleaian the reflex refers to all animals other than humans (domains 1-4 on the implicational scale) but in Woleaian it can also denote any object (domains 1-6). In Puluwat the nominal reflex of **manuk* refers to living things in general, as is also the case for the numeral classifier reflex in most Nuclear Micronesian languages. In Marshallese and Woleaian the reflex of **manuk* has become the term for ‘thing’.

It is likely that the primary sense of the PMic noun **man* was at least as broad as ‘land creatures other than humans’ and that this form had already become a classifier for humans and animals.

5.2.4 Other Oceanic groups

Outside of the Nuclear Micronesian and Central Pacific groups, reflexes of **manuk* generally have the narrower meaning ‘creature with wings: bird, bat, flying insect’. However, the paucity of good dictionaries for Oceanic languages in most regions of Melanesia limits our confidence in some of the glosses. The semantic range of reflexes of POc **manuk* in some Oceanic languages other than Nuclear Micronesian and Central Pacific is shown in Table 8.15.

Vanuatu

NE Ambae	<i>manu</i>	‘birds and flying foxes’
Mota	<i>manu</i>	‘flying creature: bird, bat, beetle’
Paamese	<i>a-man</i>	‘bird’
Sye	<i>menoy</i>	‘bird’
Lenakel	<i>menuk</i>	‘bird’
Anejoñ	<i>in-man</i>	‘bird (includes flying-foxes but not insects)’

New Caledonia

Cèmuhî	<i>meni</i>	‘birds (generic) and bats’
Fwâi	<i>manik</i>	‘bird’
Nêlêmwa	<i>mālic</i>	‘bird (generic)’

Southeast Solomonian

Arosi	<i>manu</i>	‘bird’
‘Are’are	<i>mānu</i>	‘bird, insect, anything that flies’
Kwaio	<i>manu</i>	‘bird’
Lau	<i>manu</i>	‘any creature that flies’
Sa’a	<i>menu</i>	‘bird, insect’
Gela	<i>manu</i>	‘flying creature, bird, insect’

Meso-Melanesian

Nakanai	<i>malu</i>	‘bird, insect (general term)’
Tangga	<i>man</i>	‘generic term for all species of bird’
Simbo	<i>maunuyu</i>	(1) ‘creature, being, including humans, birds, marine mammals, and possibly fish’ (2) ‘thing’

cf. also

Marovo	<i>oloko</i>	(1) ‘all flying creatures including large and small bats’ (2) ‘animal, including all mobile land animals’ (Hviding 2005:175)
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North New Guinea

Kairiru	<i>mʷan</i>	‘bird’
Manam	<i>maŋ</i>	‘bird, fowl’
Mumeng (Patep)	<i>mena?</i>	‘bird, including cassowary’
Yabem	<i>mɔ?</i>	‘birds (generic) and flying insects’

Papuan Tip

Motu	<i>manu</i>	‘birds and all things that fly including flying foxes’ (also <i>manu-manu</i> ‘flying insects’ (N. Oram field notes)
Molima	<i>manu</i>	‘bird’ (also <i>manu-manuwa</i> ‘insects’)
Dobuan	<i>manua</i>	‘birds (generic)’ (also <i>manu-manua</i> ‘insects and small creatures’)
Kilivila	<i>mauna</i>	‘animal, bird, insect’
Muyuw	<i>man</i>	‘land creature, bird, animal, insect’

Admiralties

Lou	<i>mən-mən</i>	‘bird’
Mussau	<i>menua</i>	‘hawk, eagle’

Table 8.15 Semantic range of reflexes of POc **manuk* in some Oceanic languages other than Nuclear Micronesian and Central Pacific

	1	2	3	4	5	6	Grade
	birds and bats	birds, flying insects	all land animals	all animals except humans	all beings including humans	all things	
Simbo	+	+	+	+	+	+	6
Muyuw	+	+	+	–	–	–	3
Cèmuhi	+	+	–	–	–	–	2
Gela	+	+	–	–	–	–	2
Lau	+	+	–	–	–	–	2
Mota	+	+	–	–	–	–	2
Motu	+	+	–	–	–	–	2
Nakanai	+	+	–	–	–	–	2
Manam	+	–	–	–	–	–	1
Yabem	+	+	–	–	–	–	2
Dobuan	+	–	–	–	–	–	1
NE Ambae	+	–	–	–	–	–	1
Arosi	+	–	–	–	–	–	1
Nêlêmwa	+	–	–	–	–	–	1
Lou	+	–	–	–	–	–	1

5.3 Flying creatures only or land creatures in general?

What does the total range of comparisons tell us about the semantic range of POc **manuk*? The variation among reflexes is striking. **manuk* is most widely attested in the meaning ‘winged or flying creatures: birds, bats and flying insects’, i.e. grade 2 on the scale. However, the grade 3 meaning, encompassing all land animals, is common in Central Pacific and Nuclear Micronesian, and is attested in one Papuan Tip witness, Muyuw. Grade 4, 5 and 6 meanings occur but with more restricted distributions.

In terms of accounting for the distribution of meanings across subgroups, the most economical interpretation of the full range of comparative evidence in POc is to assume that **manuk* referred only to winged or flying creatures: birds, bats and flying insects. This meaning dominates in subgroups other than Micronesian and Central Pacific. The wider meanings displayed by some daughter languages are best regarded as post-POc innovations.

This conclusion is consistent with the fact that outside of Oceanic, cognates of **manuk* generally refer to chickens or to birds in general but not to quadrupeds or marine animals. Blust (2002) attributes to PMP **manuk* the meaning ‘chicken (domestic fowl)’ on the basis of widespread reflexes in Western and Central MP languages. He also reconstructs a reduplicated form PMP **manu-manuk* meaning ‘bird’, widely reflected with this sense in WMP

languages. Blust argues that PAN had an unrelated term for ‘bird’ namely **ayam*, which was replaced in this function by **manu-manuk* in PMP. In PMP **ayam* came to mean ‘domestic animal (of any sort)’.

Given that birds are the dominant indigenous land fauna in the island groups of Remote Oceania, and that there were no mammals native to this region, other than bats, it is not surprising that the generic term for birds and bats should be extended to other land animals (see discussion in §5.2.1). Here it seems is a case where a change in the meaning of a POC biotaxon can be attributed to changes in the range of animal life encountered by speakers of Oceanic daughter languages as they moved into new environments.

6 POC **manu-manuk*

6.1 Reflexes of POC **manu-manuk* in Papuan Tip, SE Solomonic and Polynesian

Osmond (this volume, ch.7) observes that reflexes of a form **manu-manuk*, meaning approximately ‘insects and other small invertebrates’ (corresponding to the English vernacular category ‘insects’)¹⁰ are found in three widely separated subgroups of Oceanic: Papuan Tip, Southeast Solomonic and Polynesian. In certain languages in each of these groups the reflex of **manu-manuk* stands beside and contrasts with a reflex of **manuk*, meaning approximately ‘birds and other flying creatures’. Reduplications of **manuk*, but with rather different meanings, are also found in Lou (Admiralties), Fijian and Rotuman (see §5.2).

In the definitions cited below from dictionary sources it is likely that the English gloss ‘insect’ is generally used in its vernacular sense (see footnote 10).

Papuan Tip

Dobuan	<i>manu-manua</i>	‘insects and small creatures’
Motu	<i>manu-manu</i>	‘beetles, insects’
Sinaugoro	<i>manu-manu</i>	‘insects’

SE Solomonic

Bugotu	<i>mau-manu</i>	‘insect’
Gela	<i>mau-manu</i>	1. ‘insect’ 2. ‘all living creatures: pigs, fish, birds, etc.’

Polynesian

Tahitian	<i>manu-manu</i>	‘insects’
Rarotongan	<i>manu-manu</i>	‘insects, small flies’
Marquesan	<i>manu-manu</i>	‘an insect’ (POLLEX)
Mangarevan	<i>manu-manu</i>	‘insect seen clinging to branches and fermenting substances’ (POLLEX)
Pukapukan	<i>manu-manu</i>	‘little insects’

¹⁰ The *Shorter Oxford English Dictionary* gives the following definition of the popular use of ‘insect’: “...in pop. use comprising, besides the animals scientifically so called (... [animals of class Insecta]), many other arthropods, as spiders, mites, centipedes, wood-lice, etc. and other invertebrates, as the ‘coral insect’; still applied by the uneducated to earth-worms, snails, etc. and even some small invertebrates, as frogs and tortoises.” The authors of the *SOED* seem to have forgotten that the folk taxonomies of the ‘uneducated’ are as worthy as those of the ‘educated’!

Table 8.16 Implicational scale of types that may be included in reflexes of **manu-manuk*

		(1) one or a few insect taxa
		(2) insects in general
		(3) all living creatures
Tuamotuan	<i>manu-manu</i>	‘bug, insect’ (POLLEX)
Nukuoro	<i>manu-manu</i>	‘insect sp.’
Rennellese	<i>manu-manu hogau</i>	‘dragonfly’

These data yield the rather simple implicational scale in Table 8.16. It can be seen that definitions of type (2) dominate. Just one language in the sample (Gela) has a greatly extended sense: ‘all living creatures’. Unfortunately, the sources give no evidence that would tell us whether forms with meanings of types (2) and (3) behave like true taxonomic generics or whether they are used only as collectives.

6.2 What did POc **manu-manuk* mean?

It might seem a straightforward matter to conclude that **manu-manuk* was a generic or collective term for insects in general. However, two complicating factors must be addressed.

In many Oceanic languages a semi-productive use of nominal reduplication is to name a taxon which resembles that named by the simple form but is smaller or otherwise atypical—not quite the real thing (for discussion of this function of reduplication in Oceanic see Ross 2008a:50-51). Given such a mechanism, we must consider the possibility that a reduplicated form of **manuk* developed independently in Papuan Tip, Southeast Solomonic and Polynesian. On the formal level, such parallel development would not be surprising. However, it seems unlikely that the meaning of the reduplicated derivative would in both cases have been ‘insects, creepy crawlies’.

The other complicating factor is that a case can be made for attributing another sense to POc **manu-manuk*, roughly ‘all creatures’ or ‘all creatures other than those that live in water’. It was noted above (§5.2.2) that reflexes of **manu-manuk* have this broader range of reference in Lou, Rotuman and the Fijian languages. However, I prefer to regard the Lou, Rotuman and Fijian uses as post-POc innovations, in which the reflex of **manu-manuk* replaced the **manuk* reflex as the general term for creatures or land creatures. Thus the conclusion that **manu-manuk* existed in POc as a general term for insects and other small land invertebrates still stands.¹¹ Some languages, chiefly in Polynesia, have narrowed its application use to just one or a few insects but in one language its scope has been extended to encompass all living things.

¹¹ Blust (2002) reconstructs a reduplicated form PMP **manu-manuk* meaning ‘bird’, widely reflected with this sense in WMP languages, alongside PMP **manuk* ‘chicken’.

7 Conclusions

We have looked into the semantic histories of five POc terms, **ikan*, **pinanoda*, **sisiq*, **manuk* and **manu-manuk*, each a candidate for the status of a high-level generic or life form in the POc taxonomy of animals but each having reflexes with highly variable meanings. Approximate semantic reconstructions can be given for each POc term, as follows:

<i>*ikan</i>	‘high-level generic (life form) with two senses: 1. typical fish’, (2) ‘typical fish, sharks, rays, eels, cetaceans and dugongs, turtles and crocodiles, and possibly octopus and squid’
<i>*pinanoda</i>	‘collective term (not a life-form): seafood (other than fish) gathered on the reef’
<i>*sisiq</i>	‘folk generic: small globular gastropods (nerites, moon shells, periwinkles, etc.) which are an important part of the diet. Possibly also used as a collective or high-level generic for edible gastropods in general’
<i>*manuk</i>	‘high-level generic (life form): birds, bats and flying insects’
<i>*manu-manuk</i>	‘high-level collective or generic (life form): insects and other small land invertebrates’

Let us now return briefly to two questions asked at the outset. First, are the variations in the meanings of major generics across daughter languages random or do they follow an implicational scale, a natural sequence of semantic extension or contraction?

Variations in definitions given to reflexes of **ikan*, **sisiq*, **manuk* and **manu-manuk* do appear to conform to implication scales, roughly those sketched in Tables 8.1, 8.9, 8.11 and 8.16, respectively. (We leave aside **pinanoda*, which was a collective rather than a true generic.) However, the nature of the data are such that we can only give approximate analyses. Undoubtedly, finer-grained data and analysis would show that this picture is too simple. While my main focus has been on the meanings of these five etyma, the foregoing question might also be asked of non-cognate terms that refer to ‘the same’ kinds of semantic categories. A wider comparative study that included non-cognate generic terms for kinds of animals would provide a broader base for testing hypotheses about implicational scales. However, such a study must be left for another occasion.

Finally, why have such marked differences arisen in the semantic scope of these five POc terms? Can some of the changes be attributed to differences in the range of animal life encountered by different communities? All I will say here is that Oceanic islands differ considerably in the richness of their land fauna, with atolls, and small, geographically remote high islands having extremely impoverished fauna and that this variation may have played a part in the semantic histories of two of the five terms considered here, **manuk* and **manu-manuk*. Brown (1981) has already pointed to the dominance of birds over other large land animals as a possible driver of semantic change in **manuk* reflexes (see §5.2.1). But the other three terms all refer to aquatic (chiefly marine) animals and, leaving aside crocodiles and dugongs, the main types of marine fauna are fairly well represented throughout tropical Oceania. It follows that shifts in the referential range of reflexes of POc **ikan*, **pinanoda* and **sisiq* must be explained in terms of other factors.

Appendix A: Data sources and collation

1 Data sources

The subject matter of this volume is quite narrowly constrained. As a result we collated data not only from the sources used for the project generally but also from compilations of animal names in a number of languages. Both general and animal name data sources are listed below. The source of an item is generally listed against it in the text only where it is not one of those listed below or where it is an exceptional source for that particular language.

1.1 General sources

Sources are conveniently divided into published and unpublished.

1.1.1 Published sources

In alphabetical sequence of language, published sources are:

Amara	Thurston (1984)
Anejoñ (= Aneityum)	Lynch (2001 <i>b</i>)
Araki	François (2002)
'Are'are	Geerts (1970)
Arosi	Fox (1978)
Asuboa	Tryon & Hackman (1983)
Bareke	Tryon & Hackman (1983)
Bugotu	Ivens (1940)
Carolinian	Jackson & Marck (1991)
Cèmuhi	Rivierre (1994)
Chuukese (= Trukese)	Goodenough & Sugita (1990)
Bauan Fijian (= Standard Fijian)	Capell (1941)
Boumaa Fijian	R. M. W. Dixon (1988)
Dobu	J. W. Dixon (n. d.), Grant (1953)
Fwâi	Haudricourt & Ozanne-Rivierre (1982)
Gapapaiwa	McGuckin & McGuckin (1995)
Gedaged	Mager (1952)
Gela (= Nggela)	Fox (1955)
Ghanongga	Tryon & Hackman (1983)
Hawaiian	Pukui & Elbert (1971)
Iamalele	Beaumont & Beaumont (2007)

Jawe	Haudricourt & Ozanne-Rivierre (1982)
Kairiru	Wivell (1981)
Katazi	Tryon & Hackman (1983)
Kilivila	Senft (1986)
Kiribati (= Gilbertese)	Sabatier (1971), Thaman (1987)
Kokota	Palmer (2004)
Kosraean (= Kusaiean)	Lee (1976)
Kove	Chowning (1996)
Kwaio	Keesing (1975)
Kwamera	Lynch (2001 <i>b</i>)
Lau	Fox (1974)
Lenakel	Lynch (1977)
Lewo	Early (n. d.)
Loniu	Hamel (1994)
Lou	Blust (1998 <i>a</i>)
Makura	Tryon & Hackman (1983)
Malagheti	Tryon & Hackman (1983)
Maori	Williams (1971)
Maringe (= Cheke Holo = Hograno)	White et al. (1988)
Marovo	Hviding (1995)
Marshallese	Abo et al. (1976)
Minaveha	Nenegemo & Lovell (1995)
Mokilese	Harrison & Albert (1977)
Mota	Codrington & Palmer (1896)
Motu	Lister-Turner & Clark (1954)
Mussau	Blust (1984)
Muyuw	Lithgow & Lithgow (1974)
Nagu	Tryon & Hackman (1983)
Nakanai	Chowning (1996)
Nebao	Tryon & Hackman (1983)
Nehan	Glennon & Glennon (2005)
Nemi	Haudricourt & Ozanne-Rivierre (1982)
Niuean	Sperlich (1997)
Nokuku	Tryon (1976)
North Tanna	Lynch (2001 <i>b</i>)
Nyelâyu	Ozanne-Rivierre (1998)
Paamese	T. Crowley (1992)
Pije	Haudricourt & Ozanne-Rivierre (1982)
Ponapean	Rehg & Sohl (1979)
Puluwatese	Elbert (1972)
Rennell and Bellona	Elbert (1975)
Roviana	Waterhouse (1949)
Sa'a and Ulawa	Ivens (1918, 1929)
Samoa	Milner (1966)
Sengseng	Chowning (1996)
Sesake	Tryon (1976)

South Efate	Thieberger (2006 <i>b</i>)
South-west Tanna	Lynch (2001 <i>b</i>)
Sudest	Anderson (1990)
Sye (= Sie, Eromango)	T. Crowley (2000), Lynch (2001 <i>b</i>)
Tanabili	Tryon & Hackman (1983)
Tanema	Tryon & Hackman (1983)
Teanu (= Buma)	Tryon & Hackman (1983)
Tikopia	Firth (1985)
To'aba'ita	Lichtenberk (2008)
Tolai (= Kuanua, Raluana)	Rickard (1964), Lanyon-Orgill (1962)
Tolo	S. S. Crowley (1986)
Tolomako	Tryon (1976)
Tongan	Churchward (1959)
Ughele	Tryon & Hackman (1983)
Ura	Lynch (2001 <i>b</i>)
Vano	Tryon & Hackman (1983)
Wayan Fijian	Pawley & Sayaba (2003)
Wedau	Jennings (1956)
Whitesands	Lynch (2001 <i>b</i>)
Woleaian	Sohn & Tawerilmang (1976)
Yabem (= Jabêm)	Zahn (1982)

1.1.2 Unpublished sources

1. Manuscript word lists for NE Ambae by Catriona Hyslop, Babatana by Lucy Money, Kiriwina (= Kilivila) by Ralph Lawton, Mekeo by Alan Jones, Kove, Molima and Nakanai by Ann Chowning, Mutu by Alice Pomponio, Teanu (= Buma) and Mwotlap by Alexandre François, Nduke by Ian Scales, Ninigo (= Seimat) by W. Smythe, Tamambo (= Malo) by Dorothy Jauncey, Titan by Claire Bown and Zabana (= Kia) by D. Ama and M. Fitzsimons.
2. Electronic files provided by a number of scholars, some of which are themselves based on a variety of primary sources. The files include:
 - a) The electronic files of lexical data collated during the research leading to the publication of Ross (1988), whose sources are listed in Appendices A and B of that work.
 - b) The electronic files from the *Comparative Austronesian Dictionary* project which resulted in Tryon (1995), which lists its own sources.
 - c) The electronic files of Robert Blust's *Austronesian Comparative Dictionary*, stored at the University of Hawai'i. The version to which we refer dates from 1995, and is abbreviated in this volume as ACD.
 - d) The electronic files of Biggs and Clark's *POLLEX: Proto Polynesian lexicon* on disk at the University of Auckland. We refer to a June 2006 version, abbreviated POLLEX, which became available in the later stages of this volume's preparation. In October 2010, when this volume was nearing completion, POLLEX went on line at <http://pollex.org.nz>.

- e) Electronic files of dictionaries in progress provided by Joel Bradshaw (for Numbami), Deborah Hill (for Longgu) and Malcolm Ross (for Takia).
- f) Electronic files of dictionaries in progress kindly made available by members of the Summer Institute of Linguistics. Languages and those who compiled/supplied the dictionary are as follows: Arop-Lokep (Jeffrey and Lucille D’Jernes), Bariai (Steve Gallagher), Bing (Doug Bennett), Bola (Brent Wiebe), Mapos Buang (Bruce Hooley), Iduna (Joyce Hockett), Dami (George Elliott), Dawawa (Martin and Beate Knauber), Gapapaiwa (Ed and Catherine McGuckin), Gumawana (Clif Olson), Hote (Marguerite Muzzey), East Kara (Perry and Virginia Schlie), Kaulong (Craig Throop), Drehet [= Khehek] (Stephan Beard), Lewo (Robert Early), Lou (Robert and Verna Stutzman), Lukep [= Pono] (Jeff and Sissie D’Jernes), Manam (Stephen and Kim Blewett), Mangseng (Lloyd Milligan), Mangap-Mbula (Robert and Salme Bugenhagen), Mengen (Fred Madden), Misima (Bill Callister), Mumeng [Patep] (Linda Vissering and Karen Wilson), Mussau (John Brownie), Nakanai (Ray Johnston), Nehan (John and Ariana Glennon), Nochi (Leland and Laurinda Erickson), Patpatar (Ed Condra), Ramoaaina [= Duke of York] (Lisbeth Fritzell and Robyn Davies), Siar (Larry Erdman), Sinaugoro (Gerhard Tauberschmidt), Sio (Stephen and Dawn Clark), Sissano [Arop] (Stephen Whitacre), Sudest (Mike Anderson), Sursurunga (Don Hutchisson), Takia (Salme Bugenhagen, Judy Rehberg, Curtis Thomas, Bruce Waters), Tawala (Bryan Ezard), Teop (David Snyder), Tinputz (Roman Hostetler), Titan (Keith Lusk), Tuam (Robert and Salme Bugenhagen).

2 Collation

The collation stage of the project, which took place in the early and mid 1990s, entailed in the first instance the creation a data base of vocabulary materials in a defined set of semantic domains from Oceanic languages for which data were already available (see §1.1). This data base was kept in text files. Files were organised in accordance with a modified version of the Summer Institute of Linguistics’ ‘standard format’ in which fields within each record are labelled with an initial backslash followed by a single letter. In our version of the format, each record was terminated with a carriage return, i.e. each record occupied a single line. Each record contained a single word in a single language with associated information (a code relating to the language’s subgroup, a gloss and any other semantic information, the source, and any other notes the researcher chose to add). Records were organised on screen into putative cognate sets. The use of text files rather than files in a proprietary database format meant (i) that it was easy to view them on screen; (ii) that it was easy to manipulate them with a variety of text editors and word processors; (iii) that more complex repetitive processes could be performed by writing small programs in Icon (Griswold & Griswold 1990) and more recently in Python; and (iv) that it was relatively easy to import and reformat other people’s data sets and to export collated material into publications in preparation.

Although there are accepted or standard orthographies for a number of the languages from which data are cited here, data were transcribed at the collation stage into a standard orthography (this volume, ch.1, §4.2) to enable us to recognise cognates and to spot regular changes more quickly. This orthography is retained in the citation of data in these volumes.

Appendix B: Languages

1 Introduction

In §2 we list in putative subgroups all the Oceanic languages and dialects (and occasionally larger isogloss-defined regions, e.g. Western Viti Levu) that are referred to in this volume. The higher-order subgroups are those described in chapter 1, §3.2. Lower-order groups are mainly drawn from the classification in Lynch et al. (2002), and in addition for Western Oceanic from Ross (1988), for Temotu from Ross & Næss (2007), for Southern Oceanic from Lynch (1999, 2000, 2006, 2007) for Micronesian from Bender et al. (2003) and for Central Pacific and Fijian Geraghty (1983). In §3 we provide an index to §2, followed by maps showing approximate locations of the languages.

Square brackets enclose the subgroup abbreviations used in the data. Parentheses include dialect names or, where an equals sign is used, an alternative name or names for the language. The difficulty of deciding where the borderline between dialect and language lies, combined with the fact that these volumes contain work by a number of contributors, has resulted in some inconsistency in the naming of dialects in the cognate sets. Some occur in the form ‘Kara (East)’, i.e. the East dialect of the Kara language, or ‘Halia (Haku)’, i.e. the Haku dialect of the Halia language, whilst others are represented simply by the dialect name, e.g. Iduna, noted in the list below as ‘Iduna (= dialect of Bwaidoga)’. Where a language has several dialects, these are shown below in the form ‘Mumeng (Patep, Zenag, Kumaru)’, where Patep, Zenag and Kumaru are dialects of Mumeng.

2 Languages by subgroups

1. **Yapese** (perhaps more closely related to Admiralties than elsewhere)
2. *St Matthias* [Adm] (perhaps more closely related to Admiralties than elsewhere)
Mussau
3. *Admiralties* [Adm]
 - 3.1. *Western Admiralties*
Aua
Kaniet
Seimat (= Ninigo)
Wuvulu
 - 3.2. *Eastern Admiralties*

3.2.1. *Manus*

Andra
 Bipi
 Drehet (= Ndrehet, Khehek, Levei-Tulu)
 Ere
 Hus
 Kurti
 Leipon (= Pitilu)
 Lele
 Likum
 Loni
 Mondropolon
 Nali
 Nyindrou
 Papitalai
 Ponam
 Sori-Harengan
 Titan

3.2.2. *Southeast Admiralties*

Baluan
 Lenkau
 Lou
 Nauna
 Pak
 Penchal

4. *Western Oceanic*

4.1. *New Guinea Oceanic*

4.1.1. *North New Guinea* [NNG]

4.1.1.1. *Schouten*

Ali
 Bam
 Kaiep
 Kairiru
 Kis
 Manam
 Medebur
 Sissano (Arop)
 Tumleo
 Ulau-Suain
 Wogeo

4.1.1.2. *Huon Gulf*

Numbami

4.1.1.2.1. *North Huon Gulf*

Bukawa

- Kela
- Yabem (= Jabêm)
- 4.1.1.2.2. *Markham*
 - Adzera
 - Aribwatsa
 - Labu
 - Mari
 - Middle Watut (= Bubwaf)
 - Musom
 - North Watut (= Unank, Onank)
 - Sirasira
 - South Watut (= Maralango)
 - Sukurum
 - Wampur
 - Yalu
- 4.1.1.2.3. *South Huon Gulf*
 - Buang
 - Hote
 - Kaiwa
 - Kapin
 - Mangga (= dialect of Buang)
 - Mapos Buang (= dialect of Buang)
 - Misim (= dialect of Hote)
 - Mumeng (Patep, Zenang, Kumaru)
 - Vehes
- 4.1.1.3. *Ngero/Vitiaz*
 - Amara
 - Mangap (= Mangap-Mbula, Kaimanga)
 - Sio
 - Tami
 - 4.1.1.3.1. *Korap*
 - Barim
 - Lukep (Pono) (= Arop-Lokep)
 - Malasanga
 - Singorakai (= dialect of Malasanga)
 - 4.1.1.3.2. *Kilenge-Maleu*
 - Kilenge
 - Maleu
 - 4.1.1.3.3. *Mato-Rondi*
 - Mato (= Nenaya, Nengaya)
 - Roinji (= Ronji, Rondi)
 - 4.1.1.3.4. *Ngero*
 - Bariai (= Kabana)
 - Gitua
 - Kove

- Lusi
- Malai (= dialect of Mutu)
- Malalamai
- Mutu
- Tuam (= dialect of Mutu)
- 4.1.1.3.5. *Bel*
 - Bilibil (= Bilbil)
 - Bing (= Biliau)
 - Dami (= Ham)
 - Gedaged (= Graged)
 - Matukar (= Matugar)
 - Megiar (= dialect of Takia)
 - Mindiri
 - Takia
 - Riwo (= Ziwo, dialect of Gedaged)
 - Wab
- 4.1.1.3.6. *Southwest New Britain*
 - 4.1.1.3.6.1. *Bibling* (= *Lamogai*)
 - Aria
 - Lamogai
 - Mouk (= Mok)
 - 4.1.1.3.6.2. *Arawe*
 - Akolet
 - Arawe
 - Atui
 - Mangseng
 - 4.1.1.3.6.3. *Pasismanua*
 - Kaulong
 - Psohoh (= Bao)
 - Sengseng
- 4.1.1.3.7. *Mengen*
 - Kakuna (= dialect of Mamusi)
 - Longeinga (= Bush Mengen)
 - Mengen (Poeng, Maenge = Orford)
 - Mamusi
 - Uvol
- 4.1.2. *Sarmi/Jayapura* [SJ] (perhaps part of North New Guinea)
 - 4.1.2.1. *Sarmi*
 - Sobei
 - Tarpia (= Tarfia)
 - 4.1.2.2. *Jayapura*
 - Ormu
- 4.1.3. *Papuan Tip* [PT]
 - 4.1.3.1. *Suauic*
 - 'Auhelawa (= Kurada)

Logea
 Oya'oya
 Saliba (= Sariba)
 Suau (Dau, Kwato Suau)
 Tubetube
 Wagawaga

4.1.3.2. *North Mainland/D'Entrecasteaux*

Anuki
 Gumawana (= Gumasi)
 4.1.3.2.1. *Dobu/Duau*
 Bunama
 Dobu
 Duau
 Galea (= Galeya)
 Gilagila (= dialect of Sewa Bay)
 Sewa Bay

4.1.3.2.2. *Bwaidoga*
 Bwaidoga
 Diodio
 Iamalele (= Yamalele)
 Iduna (= dialect of Bwaidoga)
 Kalokalo
 Molima

4.1.3.2.3. *Kakabai/Dawawa*
 Dawawa
 Kakabai (Igora)

4.1.3.2.4. *Are/Taupota*
 Are
 Arifama
 Bartle Bay (= dialect of Wedau)
 Boanaki (= Boianaki)
 Doga
 Gapapaiwa (= Paiwa)
 Maisin
 Minaveha (= Kukuya)
 Taupota
 Tawala
 Ubir
 Wedau

4.1.3.3. *Kilivila/Misima*

Budibud
 Kilivila (= Kiriwina)
 Misima
 Muyuw

- 4.1.3.4. *Nimoa/Sudest*
 - Nimoa
 - Sudest (= Pamela), Sudest (Varavarae)
- 4.1.3.5. *Central Papuan*
 - Balawaia (= dialect of Sinaugoro)
 - Doura
 - Gabadi
 - Hula (= dialect of Keapara)
 - Keapara
 - Kuni
 - Lala (= Nara, 'Ala'ala, Pokau)
 - Magori
 - Maopa (= dialect of Keapara)
 - Mekeo (= East Mekeo)
 - Motu
 - Ouma
 - Roro
 - Sinaugoro
 - Taboro (= dialect of Sinaugoro)
 - West Mekeo
 - Yoba

4.2. *Meso-Melanesian* [MM]

- 4.2.1. *Bali-Vitu*
 - Bali
 - Vitu
- 4.2.2. *Willaumez*
 - Bola, Bola (Harua)
 - Bulu
 - Meramera
 - Nakanai (= Lakalai)
- 4.2.3. *New Ireland/Northwest Solomonian*
 - 4.2.3.1. *Tungag/Nalik family*
 - Kara (East, West)
 - Lavongai (= Tungak, Tungag)
 - Nalik
 - Tiang
 - Tigak
 - 4.2.3.2. *Tabar linkage*
 - Lihir
 - Notsi (= Nochi)
 - Tabar
 - 4.2.3.3. *Madak linkage*
 - Barok
 - Lamasong
 - Madak

4.2.3.4. Tomoip

4.2.3.5. *St George linkage*

Bilur

Kandas

Konomala

Label

Minigir (= Vinitiri)

Patpatar

Ramoaaina (= Duke of York)

Siar

Sursurunga

Tangga (= Tanga)

Tolai (= Kuanua, Raluana, Tuna), Tolai (Nodup)

4.2.3.5.1. *Northwest Solomonian linkage*

4.2.3.5.1.1. *Nehan/North Bougainville*

Hahon

Halia (Haku, Selau)

Nehan

Petats

Solos

Taiof

Teop

Tinputz

4.2.3.5.1.2. *Piva/Banoni*

Banoni

4.2.3.5.1.3. *Mono-Alu/Torau*

Mono-Alu

Torau

Uruava

4.2.3.5.1.4. *Choiseul*

Avasö

Babatana

Ririo

Sisiqa (= Sisingga, Sengga)

Vaghua

Varisi

4.2.3.5.1.5. *New Georgia*

Hoava

Kubukota

Kusaghe

Lungga

Marovo

Nduke

Roviana

Simbo

Ughele
 Vangunu
 4.2.3.5.1.6. *Ysabel*
 Blablanga
 Gao
 Kia (= Zabana)
 Kokota
 Laghu
 Maringe (= Cheke Holo, Hograno)

5. *Southeast Solomon* [SES]

5.1. *Guadalcanal-Gelic*

Birao
 Bugotu
 Gae (= dialect of West Guadalcanal)
 Gela
 Lengo
 Ghari (= dialect of West Guadalcanal)
 Malango
 Talise
 Tolo (= dialect of Talise)
 West Guadalcanal

5.2. *Makira-Malaita*

'Are'are
 Arosi
 Baelelea (= dialect of Lau)
 Bauro
 Baegu
 Dori'o
 Fagani
 Fataleka
 Kahua
 Kwai
 Kwaio
 Kwara'ae
 Langalanga (= Wala)
 Lau
 Longgu
 Owa
 Sa'a
 Santa Ana (= dialect of Owa)
 To'aba'ita (= Toqabaqita)
 Uki ni Masi (= dialect of Sa'a)
 Ulawa (= dialect of Sa'a)

6. *Temotu* [TM]

- 6.1. *Reefs and Santa Cruz*
 Äiwoo (= Reefs)
 Nagu
 Natügu (= Malo, Lödäi, Nedö)

- 6.2. *Utupua/Vanikoro*
 Asuboa
 Buma (= Teanu)
 Nebao (= Aba)
 Tanema (= Tanima, Tetau)
 Tanibili
 Vano (= Vana)

7. *Southern Oceanic*

- 7.1. *North Vanuatu linkage* [part of NCV; see Chapter 1, p.10]

- 7.1.1. *Banks and Torres*
 Dorig
 Hiw
 Lakon (= Lakona)
 Lemerig (= Sasar)
 Lehali
 Lo-Toga
 Merlav (= Mwerlap)
 Mota
 Mwesen (= Mosina)
 Mwotlap (= Motlav)
 Nume
 Olrat
 Vera'a (= Vatrata)
 Velow (= dialect of Mwotlap)
 Vurës

- 7.1.2. *Northwest Santo*
 Matantas
 Nokuku
 Tasmate
 Tolomako

- 7.1.3. *Southeast Santo*
 Araki
 Aore
 Kiai (= Fortsenal)
 Morouas
 Shark Bay
 Tamambo (= Tamabo, Malo)
 Tambotalo
 Tangoa
 Wusi

- 7.1.4. Sakao (= Nekep), Sakao (Sara)

7.1.5. *Ambae/Maewo/North Pentecost*

Maewo

Nduindui (= Ngwatua, Duidui)

Northeast Ambae (= NE Aoba)

Raga

7.2. *Nuclear Southern Oceanic*

7.2.1. *Central Vanuatu linkage* [part of NCV; see Chapter 1, p.10]

7.2.1.1. *Malakula*

7.2.1.1.1. *East Malakula linkage*

Atchin (= Northeast Malakula)

Aulua

Avava

Axamb

Larëvat

Lendamboi (= Letemboi)

Malua Bay

Maskelynes

Nese

Nisvai

Port Sandwich

Rerep (dialect of Unua)

Unua

Uripiv

7.2.1.1.2. *West Malakula linkage*

Big Nambas (= V'ënen Taut)

Labo (= Ninde)

Naha'ai, Naha'ai (Malfaxal)

Naman

Nasarian

Nāti

Neve'ei

Southwest Bay (= Nahavaq, Sinesip)

Tape

7.2.1.2. *Central and South Pentecost*

Apma (= Abma)

Sa

7.2.1.3. *Ambrym/Paama*

Lonwolwol

N Ambrym

Paamese

SE Ambrym

7.2.1.4. *Epi/Efate*

Baki

Lewo

Nakanamanga (= North Efate)

Namakir (= Namakura, Makura)
 Nguna (= dialect of Nakanamanga)
 Sesake (= dialect of Nakanamanga)
 South Efate

7.2.2. *Southern Melanesian*

7.2.2.1. *South Vanuatu* [SV]

Anejoñ (= Aneityum)
 Kwamera
 Lenakel
 North Tanna
 South-west Tanna
 Sye (= Sie, Eromangan)
 Ura
 Whitesands

7.2.2.2. *New Caledonia* [NCal]

7.2.2.2.1. *North New Caledonia*

Caaàc
 Cèmuhi
 Fwâi
 Jawe
 Pije
 Pwapwâ
 Nemi
 Nêlêmwa
 Nixumwak (= Koumak, Koumac)
 Nyelâyû
 Paicî
 Voh-Koné
 Yuanga

7.2.2.2.2. *South New Caledonia*

Ajië
 Drubea (= Païta)
 Tîrî (= Tinrin, Grand Couli)
 Xârâcùù (= Canala)

7.2.2.2.3. *Loyalties*

Dehu (= Drehu)
 Iaaï
 Nengone

8. *Micronesian* [Mic]

8.1. Nauruan

8.2. *Nuclear Micronesian*

8.2.1. Kosraean (= Kusaean)

8.2.2. *Central Micronesian*

8.2.2.1. Kiribati (= Kiribatese, Gilbertese)

8.2.2.2. *Western Micronesian*

8.2.2.2.1. Marshallese

8.2.2.2.2. *Chuukic-Ponapeic*

Carolinian

Chuukese (= Trukese)

Mokilese

Mortlockese

Namoluk (= dialect of Mortlockese)

Ponapean (= Pohnpeian)

Pulo-Annan (dialect of Sonsorolese)

Puluwatese

Satawalese

Sonsorolese

Ulithian

Woleaian

9. *Central Pacific* [Fij and Pn]¹

9.1. Rotuman

9.2. Fijian

9.2.1. *Western Fijian dialects*

Bā

Nadrogā

Wayan

West Viti Levu

Yasawa

9.2.2. *Eastern Fijian dialects*

Bauan (= Standard Fijian)

Boumā

Bua

Buca Bay

Kadavu

Lau

Lomaiviti

Namosi

Ovalau

Rakiraki

Rewa

Taveuni

Verata

Vanua Levu

Wailevu

9.3. *Polynesian*

¹ We opt here for a division of Central Pacific into Rotuman, Fijian and Polynesian here in view of the complexities of its history described in chapter 1, §3.2.2 (p.10).

9.3.1. *Tongic*

Niuean
 Niuatoputapu (= dialect of Tongan)
 Tongan

9.3.2. *Nuclear Polynesian*

Anutan
 East Uvean
 East Futunan
 Emae
 Ifira-Mele (= Mele-Fila, Imere-Ifira)
 Kapingamarangi
 Luangiua (= Ontong Java)
 Nukuoro
 Nanumea (= dialect of Tuvalu)
 Nukumanu
 Nukuria
 Pileni
 Pukapukan
 Rennellese, Rennellese (Bellona)
 Samoan
 Sikaiana
 Takuu
 Tikopia
 Tokelauan
 Tuvalu (= Ellicean)
 West Futunan (= Futuna-Aniwa)
 West Uvean

9.3.2.1. *Eastern Polynesian*

Hawaiian
 Mangaia (= dialect of Rarotongan)
 Mangarevan
 Manihiki
 Māori
 Marquesan
 Rapa
 Rapanui (= Easter Island)
 Rarotongan
 Rurutu (= Inner Australs)
 Tahitian
 Tongarevan (= Penrhyn)
 Tuamotuan

3 Language finderlist

Numbers refer to §2 above.

- Aba (= Nebao) 6.2.
 Abma (= Apma) 7.2.1.2.
 Andra 3.2.1.
 Adzera 4.1.1.2.2.
 Äiwoo 6.1.
 Ajië 7.2.2.2.2.
 Akolet 4.1.1.3.6.2.
 'Ala'ala 4.1.3.5.
 Ali 4.1.1.1.
 Amara 4.1.1.3.
 Ambrym, SE and N 7.2.1.3.
 Aneityum (= Anejoñ) 7.2.2.1.
 Anejoñ 7.2.2.1.
 Anuki 4.1.3.2.
 Anutan 9.3.2.
 Aore 7.1.3.
 Apma 7.2.1.2.
 Araki 7.1.3.
 Arawe 4.1.1.3.6.2.
 Are 4.1.3.2.4.
 'Are'are 5.2.
 Aria 4.1.1.3.6.1.
 Aribwatsa 4.1.1.2.2.
 Arifama 4.1.3.2.4.
 Arop (dialect of Sissano) 4.1.1.1.
 Arop-Lokep (Lukep) 4.1.1.3.1.
 Arosi 5.2.
 Asuboa 6.2.
 Atchin 7.2.1.1.1.
 Atui 4.1.1.3.6.2.
 Aua 3.1.
 'Auhelawa 4.1.3.1.
 Aulua 7.2.1.1.1.
 Australs, Inner (= Rurutu) 9.3.2.1.
 Avasö 4.2.3.5.1.4.
 Avava 7.2.1.1.1.
 Axamb 7.2.1.1.1.
 Bā 9.2.1.
 Babatana 4.2.3.5.1.4.
 Baegu 5.1.
 Baelelea 5.2.
 Baki 7.2.1.4.
 Balawaia 4.1.3.5.
 Bali 4.2.1.
 Baluan 3.2.2.
 Bam 4.1.1.1.
 Banoni 4.2.3.5.1.2.
 Bao (= Psohoh) 4.1.1.3.6.3.
 Bariai 4.1.1.3.4.
 Barim 4.1.1.3.1.
 Bartle Bay (dialect of Wedau) 4.1.3.2.4.
 Barok 4.2.3.3.
 Bauan (= Standard Fijian) 9.2.2.
 Bauro 5.2.
 Bellona (dialect of Rennellese) 9.3.2.
 Big Nambas 7.2.1.1.2.
 Biliau (= Bing) 4.1.1.3.5.
 Bilibil (= Bilbil) 4.1.1.3.5.
 Bilur 4.2.3.5.
 Bing 4.1.1.3.5.
 Bipi 3.2.1.
 Birao 5.1.
 Blablanga 4.2.3.5.1.6.
 Boanaki 4.1.3.2.4.
 Bola 4.2.2.
 Boumā 9.2.2.
 Bua 9.2.2.
 Buang 4.1.1.2.3.
 Bubwaf (= Middle Watut) 4.1.1.2.2.
 Buca Bay 9.2.2.
 Budibud 4.1.3.3.
 Bugotu 5.1.
 Bukawa 4.1.1.2.1.
 Bulu 4.2.2.
 Buma 6.2.
 Bunama 4.1.3.2.1.
 Bwaidoga 4.1.3.2.2.
 Caaàc 7.2.2.2.1.
 Canala (= Xârâcùù) 7.2.2.2.2.
 Carolinian 8.2.2.2.2.
 Cèmuhi 7.2.2.2.1.
 Chuukese 8.2.2.2.2.
 Dami (= Ham) 4.1.1.3.5.
 Dauì (dialect of Suau) 4.1.3.1.

- Dawawa 4.1.3.2.3.
 Dehu 7.2.2.2.3.
 Diodio 4.1.3.2.2.
 Dobu 4.1.3.2.1.
 Doga 4.1.3.2.4.
 Dori'o 5.2.
 Dorig 7.1.1.
 Doura 4.1.3.5.
 Drehet 3.2.1.
 Drehu (= Dehu) 7.2.2.2.3.
 Drubea 7.2.2.2.2.
 Duau 4.1.3.2.1.
 Duidui (= Nduindui) 7.1.5.
 East Futunan 9.3.2.
 East Uvean 9.3.2.
 Easter Island (= Rapanui) 9.3.2.1.
 Ellicean (= Tuvalu) 9.3.2.
 Emae 9.3.2.
 Ere 3.2.1.
 Eromangan (= Sye) 7.2.2.1.
 Fagani 5.2.
 Fataleka 5.2.
 Fijian (Eastern) 9.2.2.
 Fijian (Western) 9.2.1.
 Fortsenal (= Kiai) 7.1.3.
 Futuna-Aniwa (= West Futunan) 9.3.2.
 Fwâi 7.2.2.2.1.
 Gabadi 4.1.3.5.
 Galea 4.1.3.2.1.
 Galeya (= Galea) 4.1.3.2.1.
 Gae 5.1.
 Gao 4.2.3.5.1.6.
 Gapapaiwa 4.1.3.2.4.
 Gedaged 4.1.1.3.5.
 Gela 5.1.
 Ghari (dialect of W Guadalcanal) 5.1.
 Gilagila (= dialect of Sewa Bay) 4.1.3.2.1.
 Gilbertese (= Kiribati) 8.2.2.1.
 Gitua 4.1.1.3.4.
 Graged (= Gedaged) 4.1.1.3.5.
 Grand Couli (= Tîrî) 7.2.2.2.2.
 Gumasi (= Gumawana) 4.1.3.2.
 Gumawana 4.1.3.2.
 Hahon 4.2.3.5.1.1.
 Haku (dialect of Halia) 4.2.3.5.1.1.
 Halia 4.2.3.5.1.1.
 Ham 4.1.1.3.5.
 Hawaiian 9.3.2.1.
 Harua (dialect of Bola) 4.2.2.
 Hiw 7.1.1.
 Hoava 4.2.3.5.1.5.
 Hote 4.1.1.2.3.
 Hote 4.1.1.2.3.
 Hula 4.1.3.5.
 Hus 3.2.1.
 Iaaï 7.2.2.2.3.
 Iamalele 4.1.3.2.2.
 Iduna 4.1.3.2.2.
 Ifira-Mele 9.3.2.
 Imere-Ifira (= Ifira-Mele) 9.3.2.
 Inner Australs (= Rurutu) 9.3.2.1.
 Jabêm (= Yabem) 4.1.1.2.1.
 Jawe 7.2.2.2.1.
 Kabana (= Bariai) 4.1.1.3.4.
 Kadavu 9.2.2.
 Kahua 5.2.
 Kaiep 4.1.1.1.
 Kaimanga 4.1.1.3.
 Kairiru 4.1.1.1.
 Kaiwa 4.1.1.2.3.
 Kakabai 4.1.3.2.3.
 Kakuna 4.1.1.3.7.
 Kalokalo 4.1.3.2.2.
 Kandas 4.2.3.5.
 Kaniet 3.1.
 Kapin 4.1.1.2.3.
 Kapingamarangi 9.3.2.
 Kara (East, West) 4.2.3.1.
 Kaulong 4.1.1.3.6.3.
 Keapara (Hula) 4.1.3.5.
 Kela 4.1.1.2.1.
 Khehek (= Drehet) 3.2.1.
 Kia 4.2.3.5.1.6.
 Kiai 7.1.3.
 Kilenge 4.1.1.3.2.
 Kilivila 4.1.3.3.
 Kiribatese (= Kiribati) 8.2.2.1.
 Kiribati 8.2.2.1.
 Kiriwina (= Kilivila) 4.1.3.3.
 Kis 4.1.1.1.
 Kokota 4.2.3.5.1.6.
 Konomala 4.2.3.5.

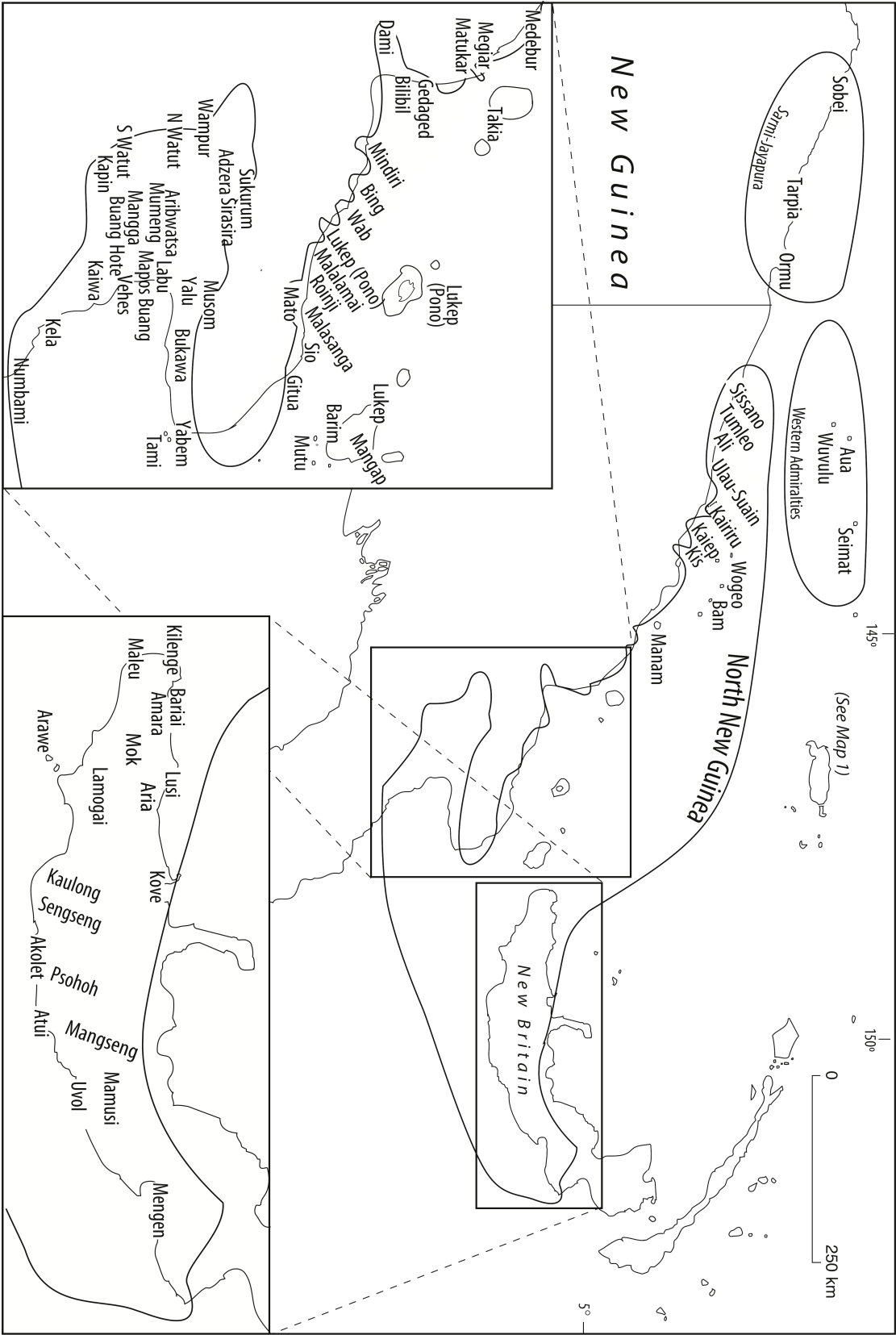
- Kosraean 8.2.1.
 Koumac (= Nixumwak) 7.2.2.2.1.
 Koumak (= Nixumwak) 7.2.2.2.1.
 Kove 4.1.1.3.4.
 Kuanua (= Tolai) 4.2.3.5.
 Kubukota 4.2.3.5.1.5.
 Kukuya (= Minaveha) 4.1.3.2.4.
 Kumaru (dialect of Mumeng) 4.1.1.2.3.
 Kuni 4.1.3.5.
 Kurada ('Auhelawa) 4.1.3.1.
 Kurti 3.2.1.
 Kusaeian (= Kosraean) 8.2.1.
 Kusaghe 4.2.3.5.1.5.
 Kwai 5.2.
 Kwaio 5.2.
 Kwamera 7.2.2.1.
 Kwara'ae 5.2.
 Kwato Suau 4.1.3.1.
 Label 4.2.3.5.
 Labo 7.2.1.1.2.
 Labu 4.1.1.2.2.
 Laghu 4.2.3.5.1.6.
 Lakalai (= Nakanai) 4.2.2.
 Lakon 7.1.1.
 Lakona (=Lakon) 7.1.1.
 Lala 4.1.3.5.
 Lamasong 4.2.3.3.
 Lamogai 4.1.1.3.6.1.
 Langalanga 5.2.
 Larëvat 7.2.1.1.1.
 Lau 9.2.2.
 Lau 5.2.
 Lavongai 4.2.3.1.
 Lehali 7.1.1.
 Leipon 3.2.1.
 Lele 3.2.1.
 Lemerig (= Sasar) 7.1.1.
 Lenakel 7.2.2.1.
 Lendamboi 7.2.1.1.1.
 Lengo 5.1.
 Lenkau 3.2.2.
 Letemboi (= Lendamboi) 7.2.1.1.1.
 Levei-Tulu (= Drehet) 3.2.1.
 Lewo 7.2.1.4.
 Lihir 4.2.3.2.
 Likum 3.2.1.
 Lödäi (= Natügu) 6.1.
 Logea 4.1.3.1.
 Lomaiviti 9.2.2.
 Longeinga (= Bush Mengen) 4.1.1.3.7.
 Longgu 5.2.
 Loni 3.2.1.
 Lonwolwol 7.2.1.3.
 Lo-Toga 7.1.1.
 Lou 3.2.2.
 Luangiua 9.3.2.
 Lukep (Pono) 4.1.1.3.1.
 Madak 4.2.3.3.
 Maenge (dialect of Mengen, = Orford)
 4.1.1.3.7.
 Maewo 7.1.5.
 Magori 4.1.3.5.
 Maisin 4.1.3.2.4.
 Makura (= Namakir) 7.2.1.4.
 Malai (= dialect of Mutu) 4.1.1.3.4.
 Malalamai 4.1.1.3.4.
 Malango 5.1.
 Malasanga 4.1.1.3.1.
 Maleu 4.1.1.3.2.
 Malfaxal (dialect of Naha'ai) 7.2.1.1.2.
 Malo (= Natügu) 6.1.
 Malo (= Tamambo) 7.1.3.
 Malua Bay 7.2.1.1.1.
 Mamusi 4.1.1.3.7.
 Manam 4.1.1.1.
 Mangaia 9.3.2.1.
 Mangap 4.1.1.3.
 Mangarevan 9.3.2.1.
 Mangga (dialect of Buang) 4.1.1.2.3.
 Mangseng 4.1.1.3.6.2.
 Manihiki 9.3.2.1.
 Māori 9.3.2.1.
 Mapos Buang 4.1.1.2.3.
 Maralango (= South Watut) 4.1.1.2.2.
 Mari 4.1.1.2.2.
 Maringe (= Cheke Holo, Hograno)
 4.2.3.5.1.6.
 Marovo 4.2.3.5.1.5.
 Marquesan 9.3.2.1.
 Marshallese 8.2.2.2.1.
 Maskelynes 7.2.1.1.1.
 Matantas 7.1.2.

- Mato 4.1.1.3.3.
 Matugar (= Matukar) 4.1.1.3.5.
 Matukar 4.1.1.3.5.
 Medebur 4.1.1.1.
 Megiar 4.1.1.3.5.
 Mekeo 4.1.3.5.
 Mele-Fila (= Ifira-Mele) 9.3.2.
 Mengen, Bush (= Longeinga) 4.1.1.3.7.
 Mengen 4.1.1.3.7.
 Meramera 4.2.2.
 Merlav 7.1.1.
 Middle Watut 4.1.1.2.2.
 Minaveha 4.1.3.2.4.
 Mindiri 4.1.1.3.5.
 Minigir 4.2.3.5.
 Misim (dialect of Hote) 4.1.1.2.3.
 Misima 4.1.3.3.
 Mok (= Mouk) 4.1.3.5.
 Mokilese 8.2.2.2.2.
 Molima 4.1.3.2.2.
 Mondropolon 3.2.1.
 Mono-Alu 4.2.3.5.1.3.
 Morouas 7.1.3.
 Mortlockese 8.2.2.2.2.
 Mosina (= Mwesen) 7.1.1.
 Mota 7.1.1.
 Motlav (= Mwotlap) 7.1.1.
 Mouk 4.1.3.5.
 Lamogai 4.1.1.3.6.1.
 Mumeng 4.1.1.2.3.
 Musom 4.1.1.2.2.
 Mussau 2. Mutu 4.1.1.3.4.
 Muyuw 4.1.3.3.
 Mwerlap (= Merlav) 7.1.1.
 Mwesen 7.1.1.
 Mwotlap 7.1.1.
 Nadrogā 9.2.1.
 Nagu 6.1.
 Naha'ai 7.2.1.1.2.
 Nahavaq (= Southwest Bay) 7.2.1.1.2.
 Nakanai 4.2.2.
 Nakanamanga 7.2.1.4.
 Nali 3.2.1.
 Nalik 4.2.3.1.
 Namakir (= Namakura, Makura) 7.2.1.4.
 Namakura (= Namakir) 7.2.1.4.
 Naman 7.2.1.1.2.
 Namoluk (dialect of Mortlockese) 8.2.2.2.2.
 Namosi 9.2.2.
 Nanumea 9.3.2.
 Nara 4.1.3.5.
 Nasarian 7.2.1.1.2.
 Nāti 7.2.1.1.2.
 Natügu 6.1.
 Nauna 3.2.2.
 Nauruan 8.1.
 Ndrehet (= Drehet) 3.2.1.
 Nduindui 7.1.5.
 Nduke 4.2.3.5.1.5.
 Nebao 6.2.
 Nedö (= Natügu) 6.1.
 Nehan 4.2.3.5.1.1.
 Nekep (= Sakao) 7.1.4.
 Nêlêmwa 7.2.2.2.1.
 Nembao (= Nebao) 6.2.
 Nemi 7.2.2.2.1.
 Nenaya (= Mato) 4.1.1.3.3.
 Nengaya (= Mato) 4.1.1.3.3.
 Nengone 7.2.2.2.3.
 Nese 7.2.1.1.1.
 Neve'ei 7.2.1.1.2.
 Nggae (= Gae) 5.1.
 Nggela (= Gela) 5.1.
 Nginia (= Ghari, dialect of W Guadalcanal) 5.1.
 Nguna 7.2.1.4.
 Ngwatua (= Nduindui) 7.1.5.
 Nimoa 4.1.3.4.
 Ninde (= Labo) 7.2.1.1.2.
 Ninigo (= Seimat) 3.1.
 Nisvai 7.2.1.1.1.
 Niuatoputapu (dialect of Tongan) 9.3.1.
 Niuean 9.3.1.
 Nixumwak 7.2.2.2.1.
 Nochi (= Notsi) 4.2.3.2.
 Nodup (dialect of Tolai) 4.2.3.5.
 Nokuku 7.1.2.
 North Ambrym 7.2.1.3.
 North Efate (= Nakanamanga) 7.2.1.4.
 North Tanna 7.2.2.1.
 North Watut 4.1.1.2.2.

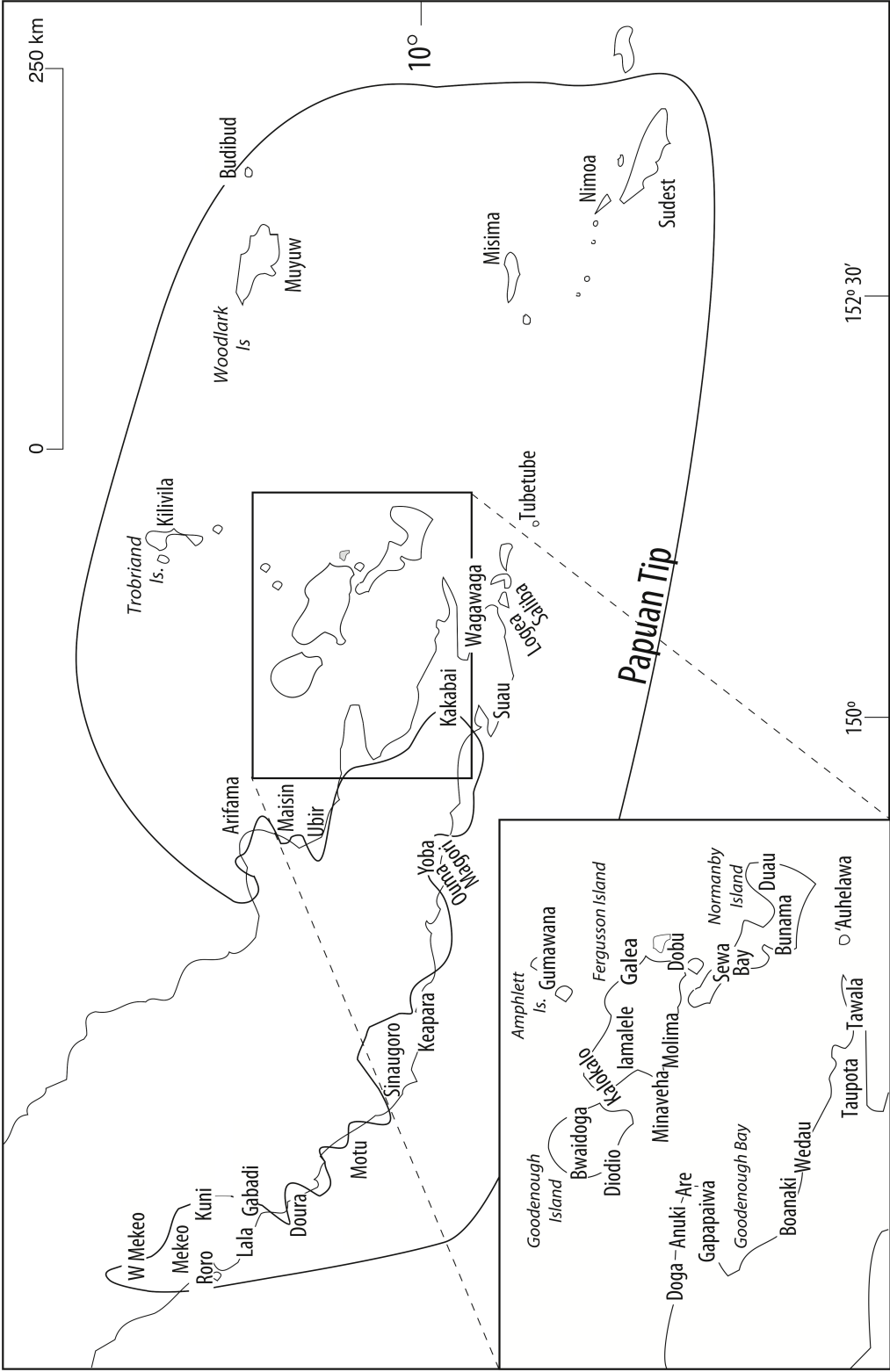
- Northeast Ambae 7.1.5.
 Northeast Aoba (= NE Ambae) 7.1.5.
 Northeast Malakula (= Atchin) 7.2.1.1.1.
 Notsi 4.2.3.2.
 Nukumanu 9.3.2.
 Nukuoro 9.3.2.
 Nukuria 9.3.2.
 Numbami 4.1.1.2.
 Nume 7.1.1.
 Nyelâyu 7.2.2.2.1.
 Nyindrou 3.2.1.
 Olrat 7.1.1.
 Onank (= North Watut) 4.1.1.2.2.
 Ontong Java (= Luangiua) 9.3.2.
 Orford (dialect of Mengen, = Maenge) 4.1.1.3.7.
 Ormu 4.1.2.2.
 Ouma 4.1.3.5.
 Ovalau 9.2.2.
 Owa 5.2.
 Oya'oya 4.1.3.1.
 Paamese 7.2.1.3.
 Paicî 7.2.2.2.1.
 Païta (= Drubea) 7.2.2.2.2.
 Paiwa (= Gapapaiwa) 4.1.3.2.4.
 Pak 3.2.2.
 Pamela (= Sudest) 4.1.3.4.
 Papitalai 3.2.1.
 Patep (dialect of Mumeng) 4.1.1.2.3.
 Patpatar 4.2.3.5.
 Penchal 3.2.2.
 Penrhyn (= Tongarevan) 9.3.2.1.
 Petats 4.2.3.5.1.1.
 Pije 7.2.2.2.1.
 Pileni 9.3.2.
 Pitilu (= Leipon) 3.2.1.
 Poeng (dialect of Mengen) 4.1.1.3.7.
 Pohnpeian (= Ponapean) 8.2.2.2.2.
 Pokau 4.1.3.5.
 Ponam 3.2.1.
 Ponapean 8.2.2.2.2.
 Pono (= Lukep) 4.1.1.3.
 Port Sandwich 7.2.1.1.1.
 Psohoh 4.1.1.3.6.3.
 Pukapukan 9.3.2.
 Pulo-Annan 8.2.2.2.2.
 Puluwatese 8.2.2.2.2.
 Pwapwâ 7.2.2.2.1.
 Raga 7.1.5.
 Rakiraki 9.2.2.
 Raluana (= Tolai) 4.2.3.5.
 Ramoaina (= Duke of York) 4.2.3.5.
 Rapa 9.3.2.1.
 Rapanui 9.3.2.1.
 Rarotongan 9.3.2.1.
 Reefs (= Äiwoo) 6.1.
 Rennellese 9.3.2.
 Rerep 7.2.1.1.1.
 Rewa 9.2.2.
 Ririo 4.2.3.5.1.4.
 Riwo (dialect of Gedaged) 4.1.1.3.5.
 Roinji 4.1.1.3.3.
 Rondi (= Ronji) 4.1.1.3.3.
 Ronji (= Roinji) 4.1.1.3.3.
 Roro 4.1.3.5.
 Rotuman 9.1.
 Roviana 4.2.3.5.1.5.
 Rurutu 9.3.2.1.
 Sa 7.2.1.2.
 Sa'a 5.2.
 Sakao 7.1.4.
 Saliba 4.1.3.1.
 Samoan 9.3.2.
 Santa Ana (dialect of Kahua) 5.2.
 Sara (dialect of Sakao) 7.1.4.
 Sariba (= Saliba) 4.1.3.1.
 Sasar (= Lemerig) 7.1.1.
 Satawalese 8.2.2.2.2.
 Seimat 3.1.
 Selau (dialect of Halia) 4.2.3.5.1.1.
 Sengga (= Sisiqa) 4.2.3.5.1.4.
 Sengseng 4.1.1.3.6.3.
 Sesake (dialect of Nakanamanga) 7.2.1.4.
 Sewa Bay 4.1.3.2.1.
 Shark Bay 7.1.3.
 Siar 4.2.3.5.
 Sie (= Sye) 7.2.2.1.
 Sikaiana 9.3.2.
 Simbo 4.2.3.5.1.5.
 Sinaugoro (Balawaia, Taboro) 4.1.3.5.
 Sinesip 7.2.1.1.2.
 Singorakai (dialect of Malasanga) 4.1.1.3.1.

- Sio 4.1.1.3.
 Sirasira 4.1.1.2.2.
 Sisingga (= Sisiqa) 4.2.3.5.1.4.
 Sisiqa (= Sisingga, Sengga) 4.2.3.5.1.4.
 Sissano (Arop) 4.1.1.1.
 Sobei 4.1.2.1.
 Solos 4.2.3.5.1.1.
 Sonsorolese 8.2.2.2.2.
 Sori-Harengan 3.2.1.
 South Efate 7.2.1.4.
 Southeast Ambrym 7.2.1.3.
 South Watut 4.1.1.2.2.
 Southwest Tanna 7.2.2.1.
 Southwest Bay (= Nahavaq) 7.2.1.1.2.
 Suau 4.1.3.1.
 Sudest 4.1.3.4.
 Sukurum 4.1.1.2.2.
 Sursurunga 4.2.3.5.
 Sye 7.2.2.1.
 Tabar 4.2.3.2.
 Taboro 4.1.3.5.
 Tahitian 9.3.2.1.
 Taiof 4.2.3.5.1.1.
 Takia 4.1.1.3.5.
 Takuu 9.3.2.
 Talise 5.1.
 Tamabo (= Tamambo) 7.1.3.
 Tamambo (= Tamabo, Malo) 7.1.3.
 Tambotalo 7.1.3.
 Tami 4.1.1.3.
 Tanema 6.2.
 Tanga (= Tangga) 4.2.3.5.
 Tangga 4.2.3.5.
 Tangoa 7.1.3.
 Tanibili 6.2.
 Tanima (= Tanema) 6.2.
 Tanimbili (= Tanibili) 6.2.
 Tape 7.2.1.1.2.
 Tarfia (= Tarpia) 4.1.2.1.
 Tarpia 4.1.2.1.
 Tasmate 7.1.2.
 Taupota 4.1.3.2.4.
 Taveuni 9.2.2.
 Tawala 4.1.3.2.4.
 Teanu (= Buma) 6.2.
 Teop 4.2.3.5.1.1.
 Tetau (= Tanema) 6.2.
 Tiang 4.2.3.1.
 Tigak 4.2.3.1.
 Tikopia 9.3.2.
 Tinputz 4.2.3.5.1.1.
 Tinrin (= Tîrî) 7.2.2.2.2.
 Tîrî 7.2.2.2.2.
 Titan 3.2.1.
 To'aba'ita 5.2.
 Tokelauan 9.3.2.
 Tolai 4.2.3.5.
 Tolo 5.1.
 Tolomako 7.1.2.
 Tomoip 4.2.3.4.
 Tongan 9.3.1.
 Tongarevan 9.3.2.1.
 Toqabaqita (=To'aba'ita) 5.2.
 Torau 4.2.3.5.1.3.
 Trukese (= Chuukese) 8.2.2.2.2.
 Tuam (= dialect of Mutu) 4.1.1.3.4.
 Tuamotuan 9.3.2.1.
 Tubetube 4.1.3.1.
 Tumleo 4.1.1.1.
 Tuna (= Tolai) 4.2.3.5.
 Tungag (= Lavongai) 4.2.3.1.
 Tungak (= Lavongai) 4.2.3.1.
 Tuvalu 9.3.2.
 Ubir 4.1.3.2.4.
 Ughele 4.2.3.5.1.5.
 Uki ni Masi (dialect of Sa'a) 5.2.
 Ulau-Suain 4.1.1.1.
 Ulawa (dialect of Sa'a) 5.2.
 Ulithian 8.2.2.2.2.
 Unank (= North Watut) 4.1.1.2.2.
 Unua 7.2.1.1.1.
 Ura 7.2.2.1.
 Uripiv 7.2.1.1.1.
 Uruava 4.2.3.5.1.3.
 Uvol 4.1.1.3.7.
 V'ënen Taut (= Big Nambas) 7.2.1.1.2.
 Vaghua 4.2.3.5.1.4.
 Vana (= Vano) 6.2.
 Vangunu 4.2.3.5.1.5.
 Vano 6.2.
 Vanua Levu 9.2.2.
 Varavarae (dialect of Sudest) 4.1.3.4.

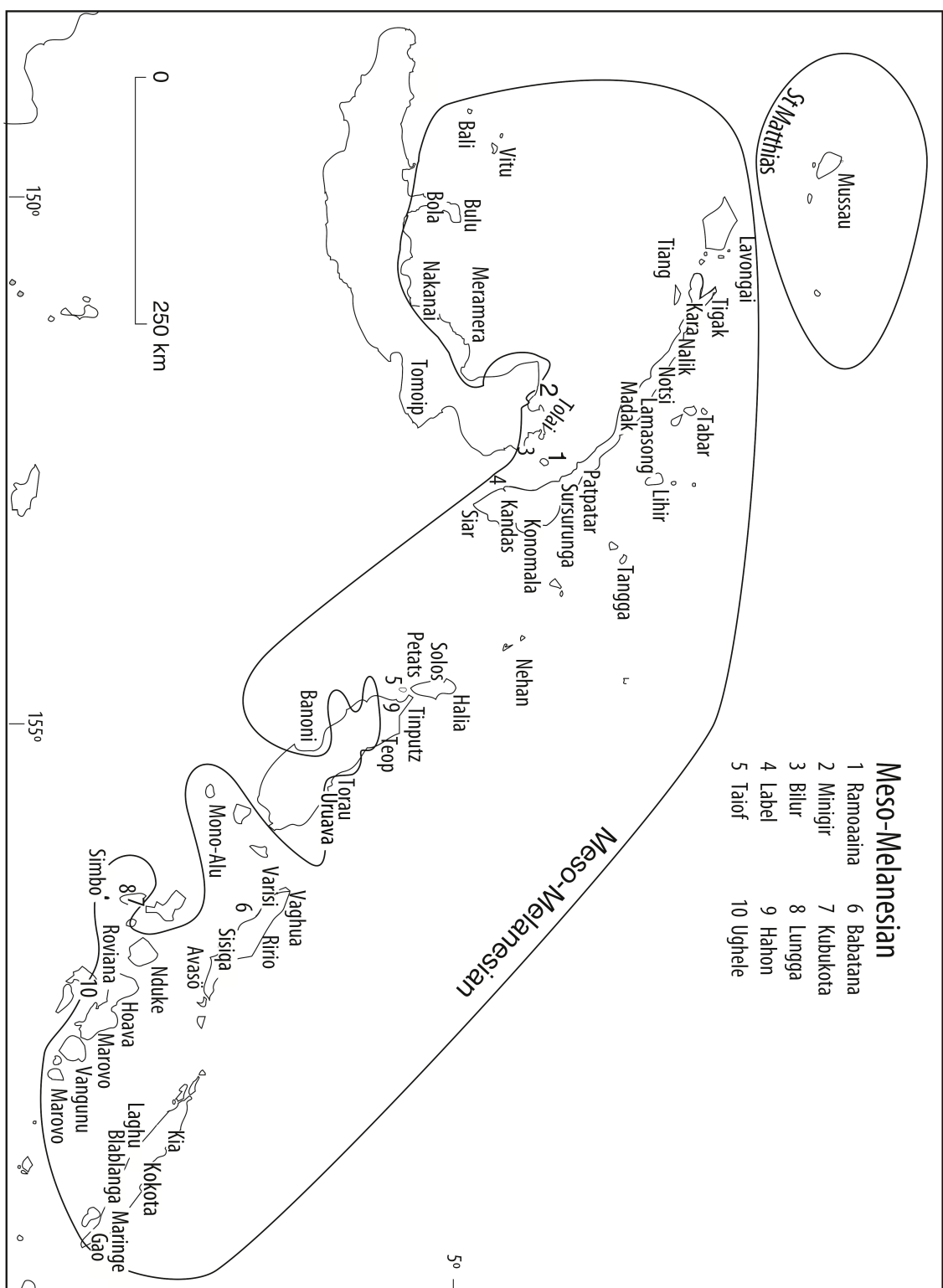
- Varisi 4.2.3.5.1.4.
- Vatrata (= Vera'a) 7.1.1.
- Vehes 4.1.1.2.3.
- Vera'a 7.1.1.
- Vinitiri (= Minigir) 4.2.3.5.
- Vitu 4.2.1.
- Voh-Koné 7.2.2.2.1.
- Volow 7.1.1.
- Vurës 7.1.1.
- Wab 4.1.1.3.5.
- Wagawaga 4.1.3.1.
- Wailevu 9.2.2.
- Wampur 4.1.1.2.2.
- Watut, North 4.1.1.2.2.
- Wayan 9.2.1.
- Wedau 4.1.3.2.4.
- West Futunan 9.3.2.
- West Guadalcanal 5.1.
- West Mekeo 4.1.3.5.
- West Uvean 9.3.2.
- West Viti Levu 9.2.1.
- Whitesands 7.2.2.1.
- Wogeo 4.1.1.1.
- Woleaian 8.2.2.2.2.
- Wusi 7.1.3.
- Wuvulu 3.1.
- Xârâcùù 7.2.2.2.2.
- Yabem 4.1.1.2.1.
- Yalu 4.1.1.2.2.
- Yamalele (= Iamalele) 4.1.3.2.2.
- Yap 1.
- Yasawa 9.2.1.
- Yoba 4.1.3.5.
- Yuanga 7.2.2.2.1.
- Zabana (= Kia) 4.2.3.5.1.6.
- Zenag (dialect of Mumeng) 4.1.1.2.3.
- Ziwo (= Riwo, dialect of Gedaged) 4.1.1.3.5.



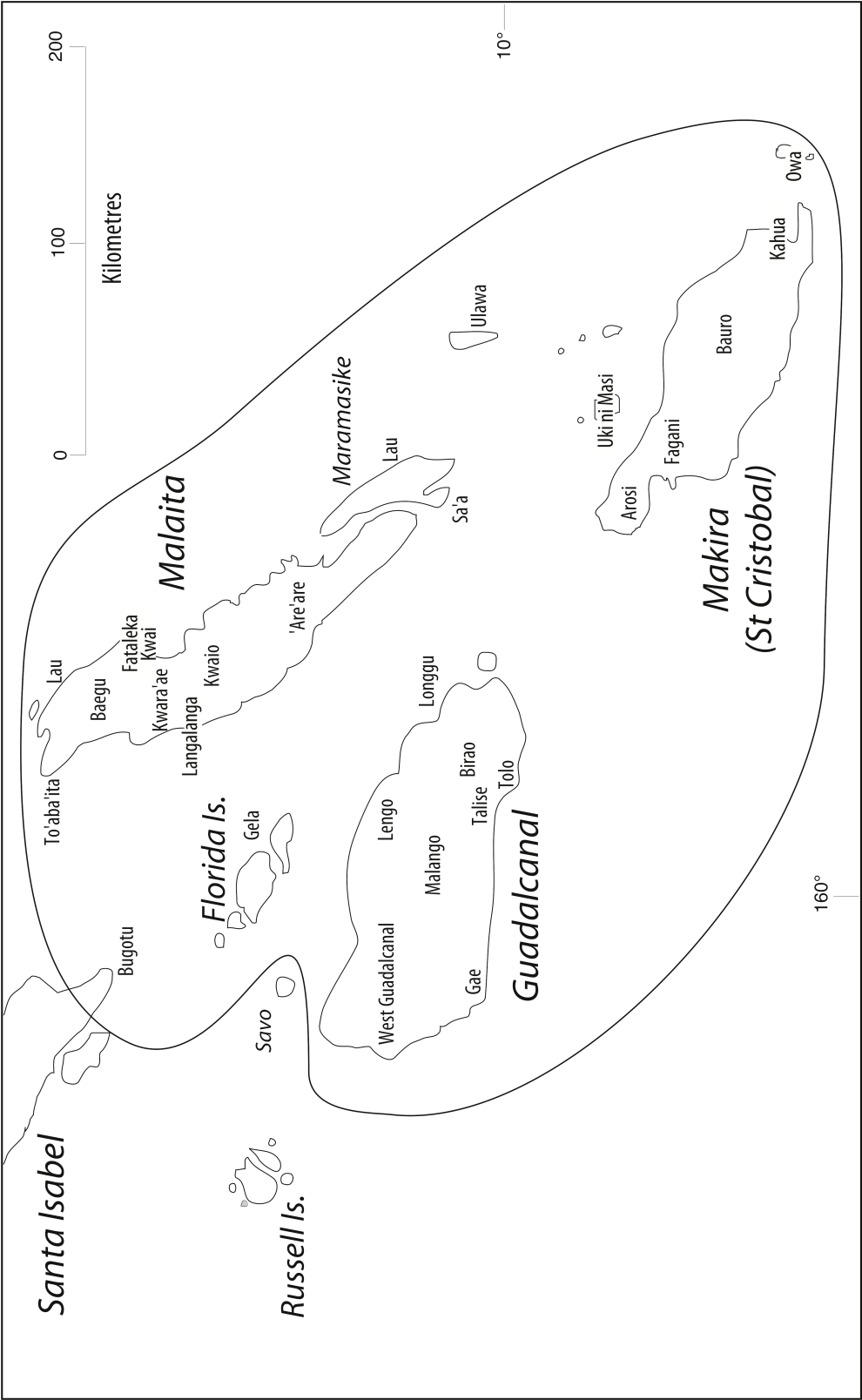
Map 8 Locations of languages of the Western Admiralties (Adm) family, the North New Guinea (NNG) cluster, and the Sarmi-Jayapura (SJ) family



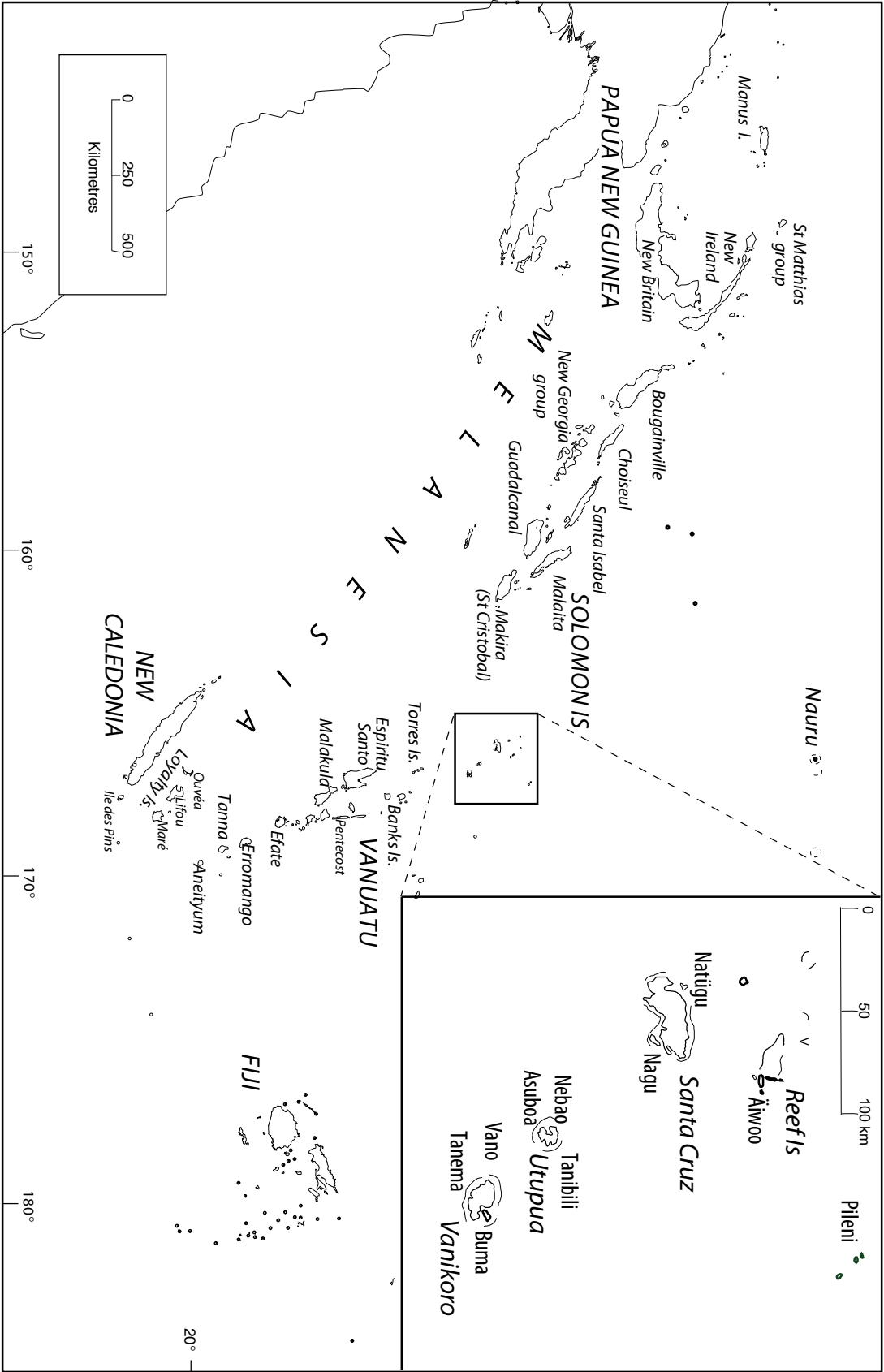
Map 9 Locations of languages of the Papuan Tip (PT) cluster



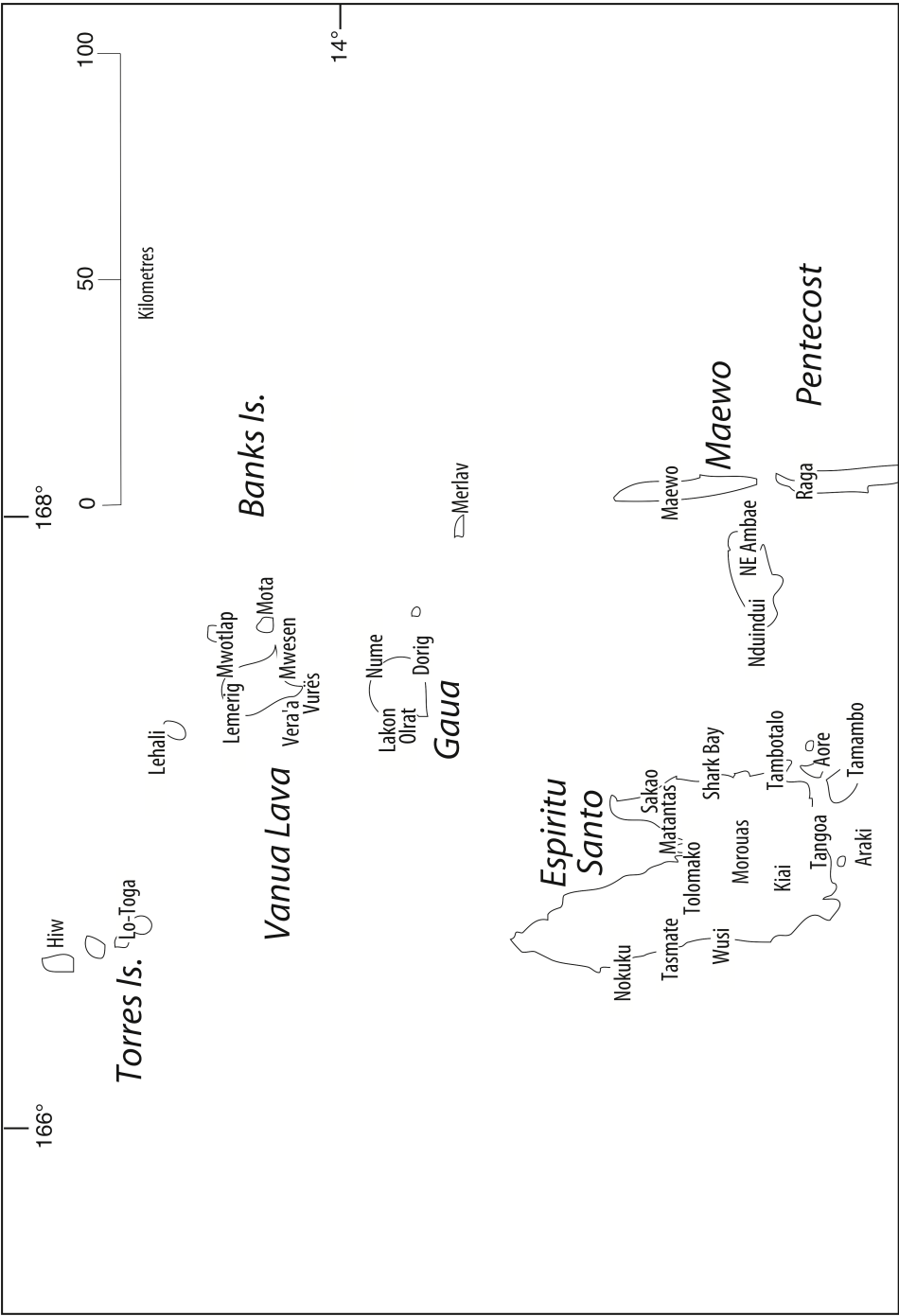
Map 10 Locations of languages of the Meso-Melanesian (MM) cluster and the St Matthias group



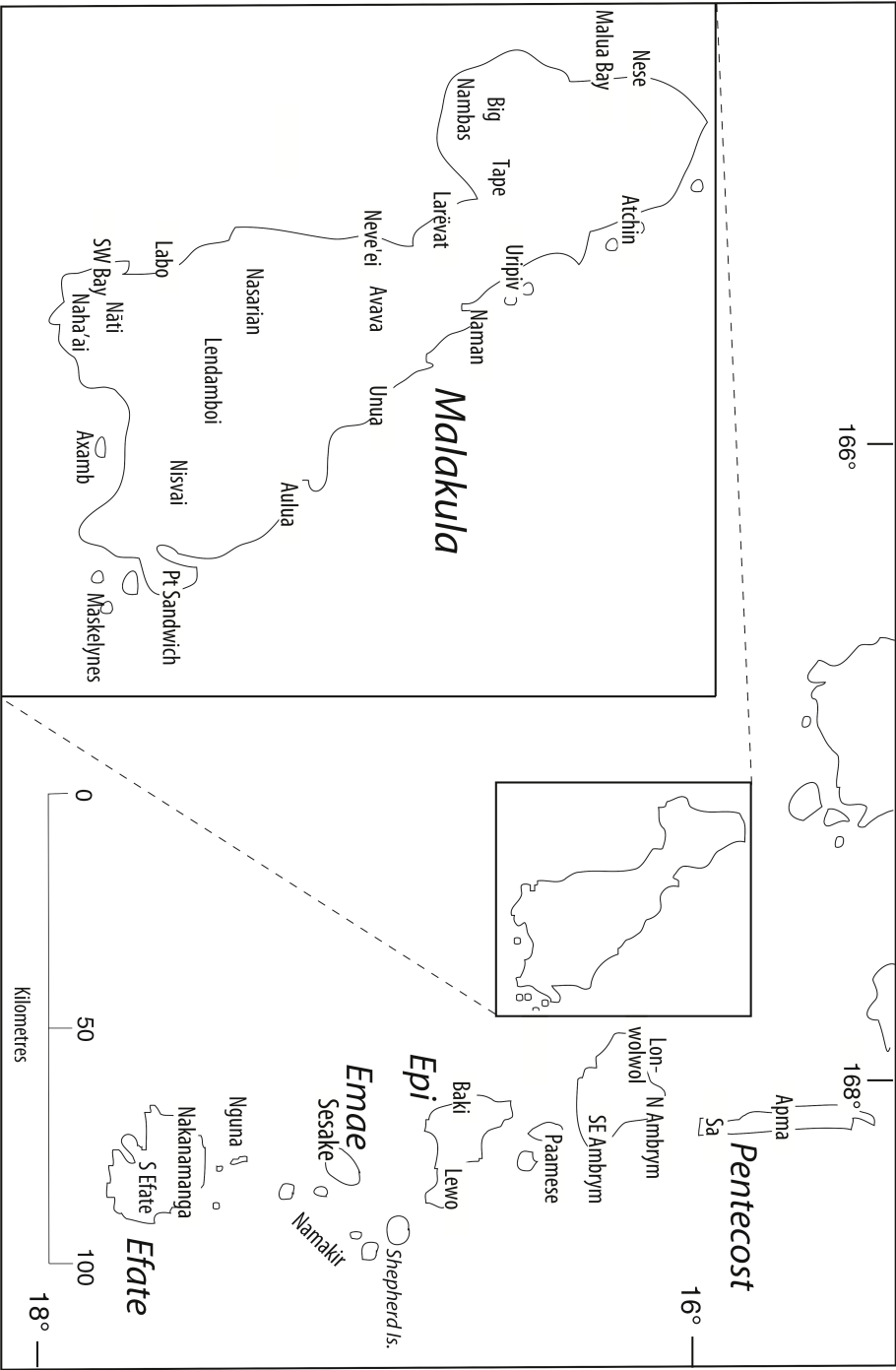
Map 11 Locations of Southeast Solomonian (SES) languages



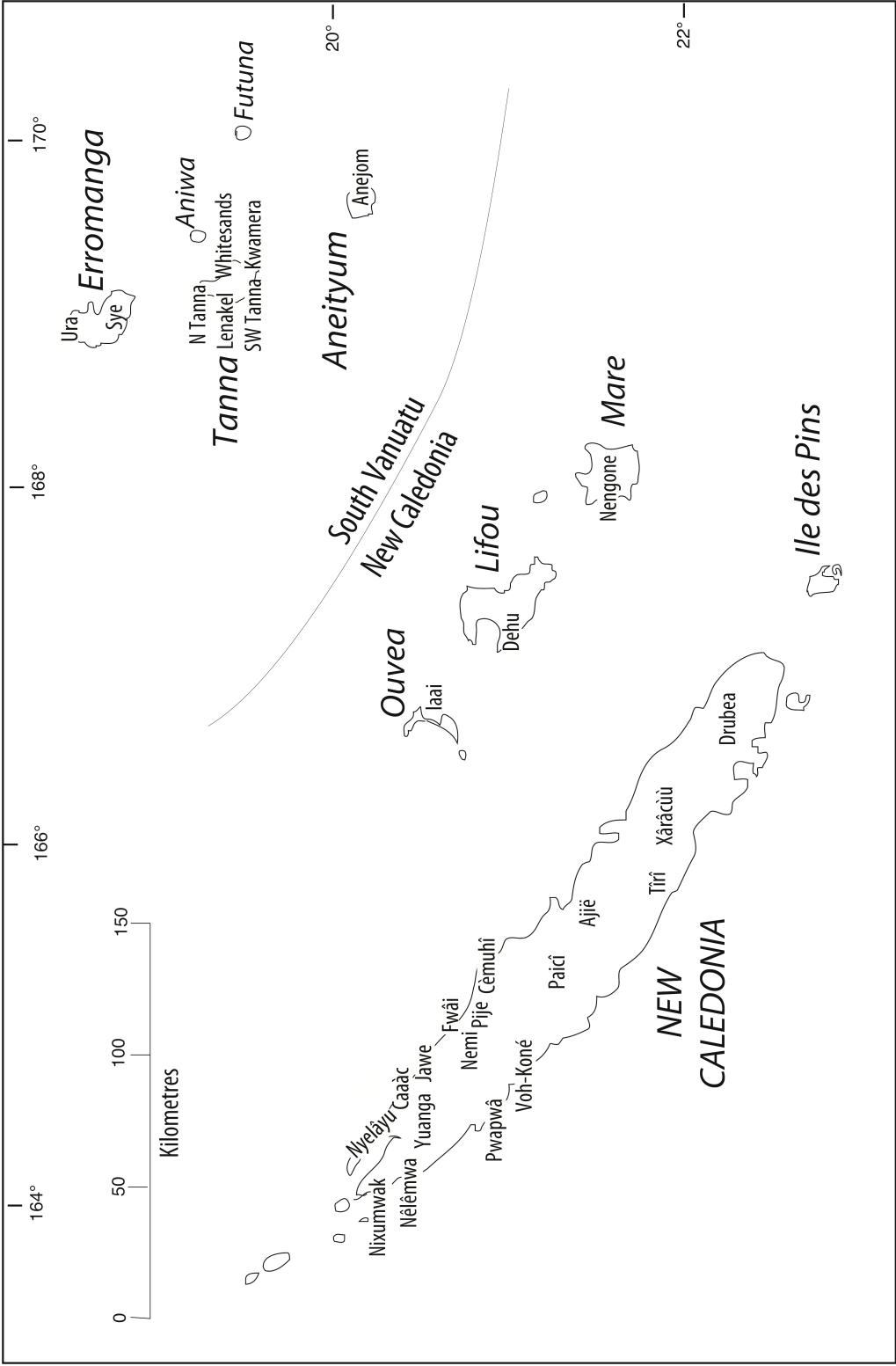
Map 12 Locations of Temotu (TM) languages and Pileni



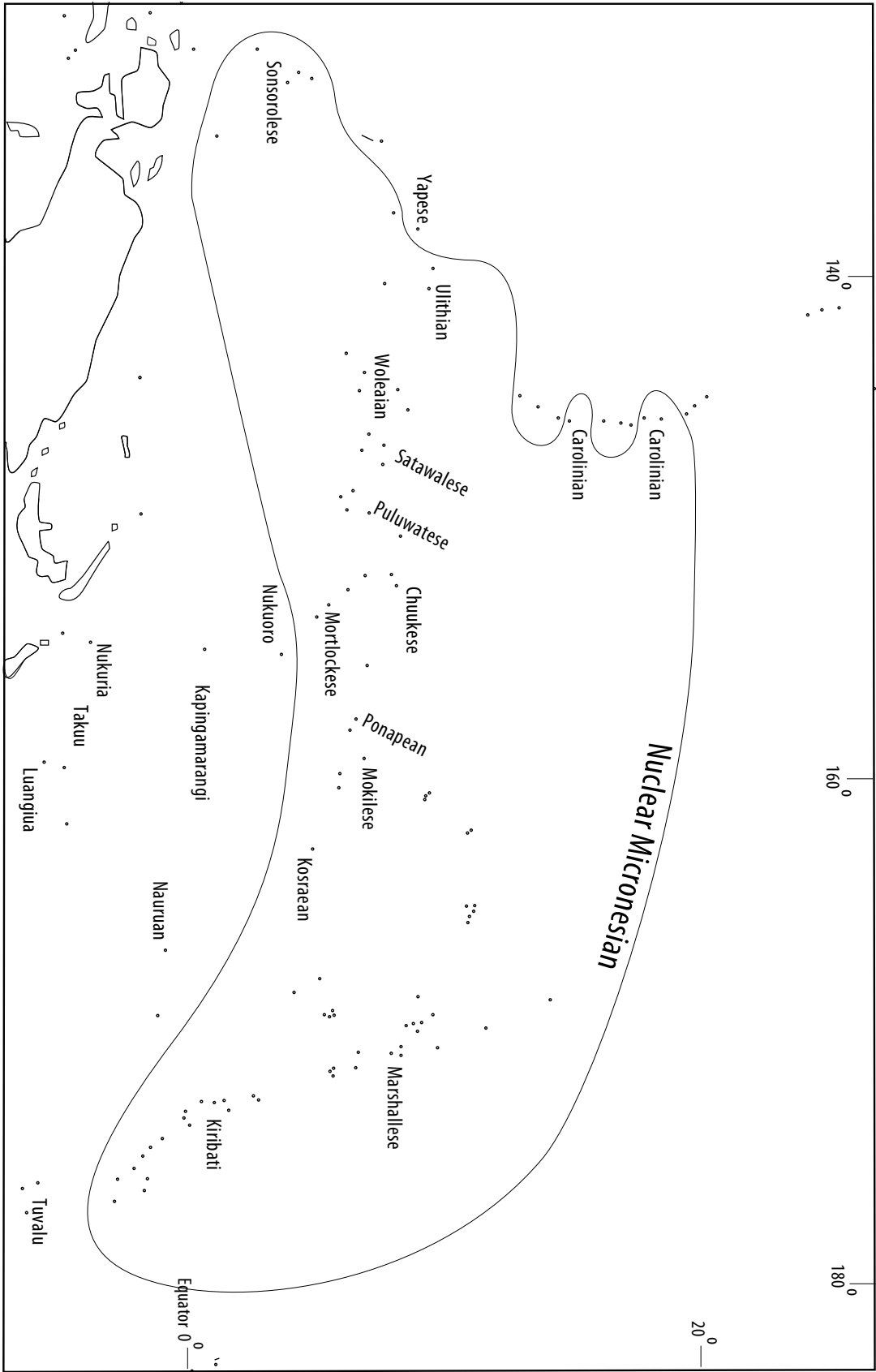
Map 13 Locations of North Vanuatu (NCV) languages



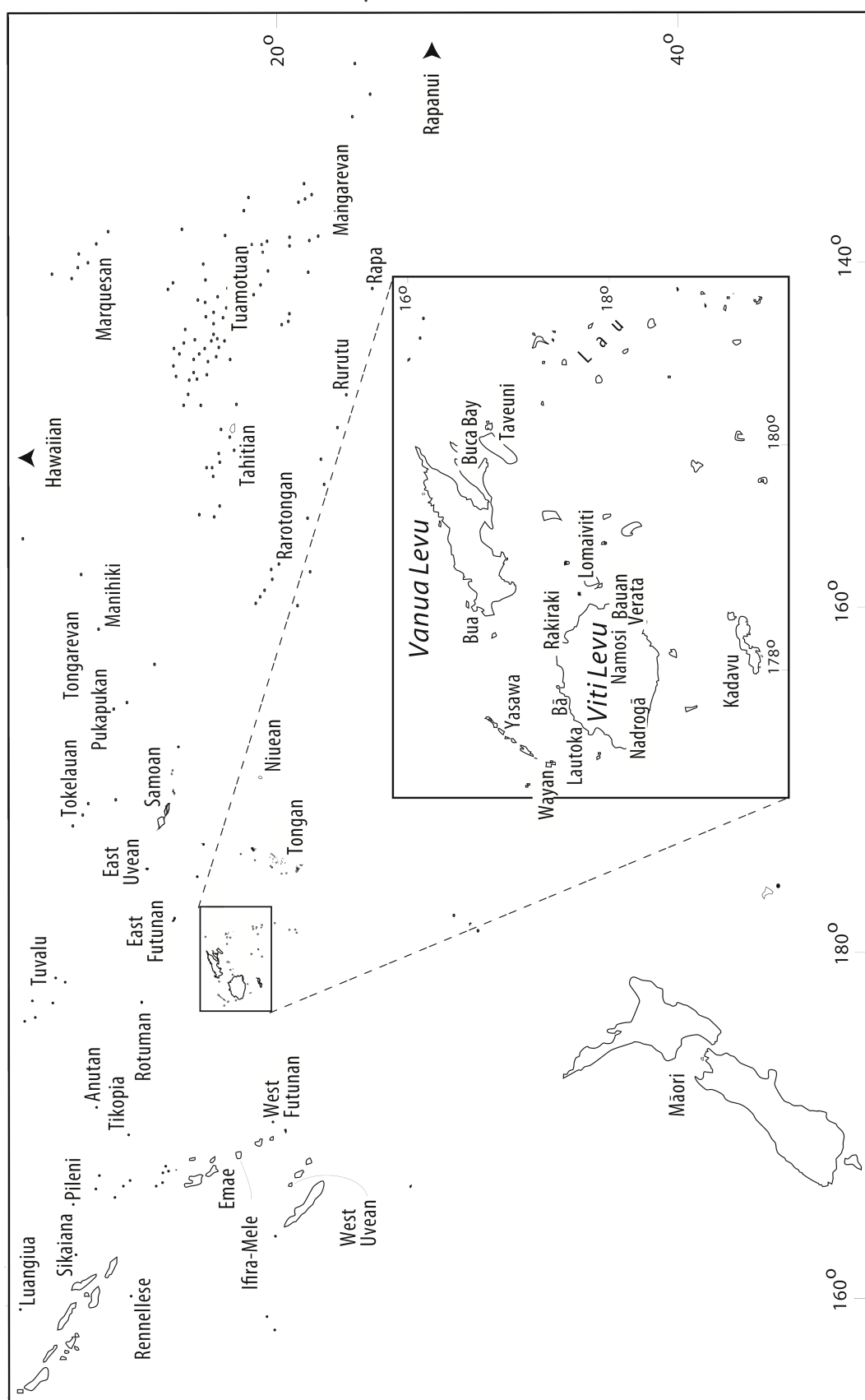
Map 14 Locations of Central Vanuatu (NCV) languages



Map 15 Locations of Southern Vanuatu (SV) and New Caledonia (NCal) languages



Map 16 Locations of Yapese, Nauruan, Nuclear Micronesian (Mic) and some Polynesian (Pn) languages



Map 17 Locations of Fijian (Fij) and Polynesian (Pn) languages

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Index of reconstructions by protolanguage

Protolanguages are ordered from the top of the Austronesian tree downward, but with all branches of Western Oceanic before Eastern Oceanic: see figures 1.1 and 1.2 (pp.7–8). In alphabetising reconstructions, an upper-case character follows the corresponding lower-case character (thus *R* follows *r*), *ɣ* follows *g*, *ñ* follows *n*, *ŋ* follows *ñ*, *ð* follows *S*, the digraph *dr* follows *d*, a superscripted character is treated like the corresponding unsuperscripted character, and macrons, parentheses and brackets are ignored. Where alternants are shown in parentheses or brackets, e.g. (*r*/*R*) or [*q*,*k*], the second alternant is ignored, but is often shown in a crossreferenced entry at the appropriate alphabetic point. PSV reconstructions which consist of **n(V)-* ‘ARTICLE’ + ROOT are alphabetised by the root.

Proto Austronesian (PAN)

- *baRuj* ‘dove, *Ducula* sp.’, 313
- *beRek* ‘domesticated pig’, 238
- *biRaS* ‘roe, fish eggs’, 129
- *buqaya* ‘crocodile’, 252
- *Ciqaw* ‘goatfish’, 84
- *ikuR* ‘tail’, 267, 277
- *kuCu* ‘louse’, 374
- *kulabaw* ‘rat, mouse’, 233
- *kuRita* ‘octopus’, 199
- *lalay* ‘cicada’, 397
- *lawaq* ‘spider’, 409
- *liseqeS* ‘nit, louse egg’, 375
- *paRiS* ‘stingray’, 34
- *peñu* ‘turtle’, 249
- *punay* ‘dove, *Treron* sp.’, 310
- *puRuq* ‘quail, partridge’, 307
- *qali-beŋbeŋ* ‘butterfly’, 378
- *qalu-Sipan* ‘centipede’, 406
- *qudaŋ* ‘shrimp, lobster’, 165
- *qulej* ‘maggot’, 414
- *qumanj* ‘hermit crab’, 170
- *quSaNap* ‘scale of fish’, 131

**SayaN* ‘white ant, termite’, 394

**Sikan* ‘fish’, 28

**Sipes* ‘cockroach’, 402

**tuNa* ‘freshwater eel’, 43

**tumeS* ‘clothes louse’, 375

Proto Malayo-Polynesian (PMP)

**anay* ‘termite’, 394

**baŋbaŋ* ‘fish sp.’, 65

**bilu[bilu]* ‘*Caranx* spp., trevally’, 69

**biRaq* ‘*Zebrasoma veliferum*’, 103

**bualabaw* ‘rat, mouse’, 232

**bukaw* ‘owl sp.’, 318

**bukbuk* ‘weevil that infests wood, bamboo, and rice; dust produced by the boring of this insect; tooth decay, dental caries’, 388

**bulan-bulan* ‘a white fish, *Megalops cyprinoides*’, 37

**bulati* ‘roundworm, ascaris, intestinal worm; also earthworm?’, 413

**buliq* ‘cowrie shell’, 185

**bulu* ‘body hair, fur, feather, down, floss’, 273

- **buna* ‘batfish’, 88
 **buŋa* ‘flower, blossom’, **buŋa ni batu* ‘coral sponge’, 208
 **buqaya* + modifier ‘*Hippocampus* sp., seahorse’, 56
 **duyuy* ‘dugong’, 247
 **gaway* ‘octopus tentacles’, 201
 **hasaŋ* ‘gills’, 129
 **hikan* ‘fish’, 28
 *(*kali*)*papa* ‘praying mantis, grasshopper’, 398
 **kanasay* ‘mullet’, 58
 **kanaway* ‘white bird’, 365
 **kapak* ‘wings; flutter’, 275
 **kapay* ‘flap wings’, 276
 **kapi-kapi* ‘fin’, 133
 **kaRakap* ‘probably rock crab’, 177
 **kaRuki* ‘sand crab, *Ocypoda* sp.’, 176
 **kasuli* ‘*Anguillidae*, freshwater eel’, 47
 **katawan* ‘fish sp.’, 103
 **kempuy* ‘abdomen, belly’, 134
 **keRteŋ* ‘kind of striped or spotted marine fish, *Epinephelus* sp.’, 65
 **kima* ‘giant clam, *Tridacna* spp.’, 189
 **kiteŋ* ‘rabbitfish’, 108
 **kulambar* ‘*Gnathodentex*, *Scolopsis*’, 81
 *[(*k,q*)]*ulapi* ‘parrotfish’, 95
 **kuRapu* ‘*Epinephelus* sp.’, 64
 **kuRaw* ‘edible marine fish’, 36
 **kuSkus* ‘claw, finger, toenail’, 278
 **kutu* ‘louse’, 374
 **labaw* ‘rat, mouse’, 232
 **lajay* ‘coral’, 208
 **lajih* ‘dolphinsfish’, 71
 **lalak* ‘trochus shell’, 186
 **laŋaw* ‘botfly, bluebottle’, 385
 **lawi* ‘tail feather’, 274
 **loRo* ‘red tree ant’, 391
 **mamin* ‘wrasse, *Cheilinus* spp.’, 92
 **manuk* ‘bird, fowl’, 284
 *-*muken* ‘omen dove’, 316
 **muquŋ* ‘k.o. fish’, 109
 **mutu* ‘damsel fish’, 90
 **nek-nek* ‘gnat, sandfly, fruit fly’, 384
 **nik-nik*, **ñik-ñik* ‘tiny biting insect: gnat, sandfly, fruitfly’, 383
 **nipay* ‘snake’, 259
 **ñamuk* ‘mosquito’, 380
 **ñepuq* ‘stonefish’, 119
 **ŋaRaq* ‘wild duck’, 293
 **ŋiŋ* ‘buzz, hum’, 383
 **palata* ‘fish sp.’, 73
 **paliR* ‘surgeonfish’, 103
 **panij* ‘wing’, 132, 275
 **papa* ‘praying mantis, grasshopper’, see *(*kali*)*papa*
 **paRih manuk* ‘? ray’, 35
 **paya* ‘k.o. small fish, sardine or anchovy’, 38
 **qabated* ‘sago grub’, 404
 **qaliliŋ* ‘cat’s eye shell’, 182
 **qalimaŋaw* ‘mangrove crab’, 172
 **qali-petpet* ‘firefly’, 399
 **qalu* ‘barracuda’, 62
 **qalu-hipan* ‘centipede’, 406
 **qaroŋo* ‘*Acanthurus* spp.’, 104
 **qaRuas* ‘young growth stage of mullet, *Neomyxus chaptalii*’, 59
 **qateluR* ‘egg, testicle’, 278
 **qatulay* ‘*Trachurops crumenophthalmus*, the big-eyed scad’, 69
 **qawa*, **qawan* ‘*Chanos chanos*, milkfish’, 41
 **qayuyu* ‘coconut crab, *Birgus latro*’, 169
 **qulapi* ‘parrotfish’, see *[(*k,q*)]*ulapi*
 **qulej-an* ‘have worms’, 415
 **qulej-qulej* ‘lots of worms; crawling with worms, extremely wormy’, 416
 **qumay* ‘unicorn fish, *Naso* spp.’, 101
 **qupa* ‘hen, egg-laying chicken’, 287
 **qutur* ‘green jobfish’, 75
 **Raŋa*, **Raŋak* or **Raŋar* ‘the spider conch, *Lambis lambis*’, 181
 **Rebek* ‘to fly’, 281
 **saku* ‘needlefish’, 51

- **saku-layaR* ‘sailfish, swordfish’, 116
- **saya-saya* ‘starfish’, 206
- **siRik* ‘dorsal fin’, 134
- **sisi[q]* ‘edible snail’ (doublets
**sisuq*, **susuq*), 184
- **sulig* ‘*Caesio* sp., fusilier’, 74
- **tabuRiq* ‘conch shell trumpet’ (dbl.
**tabuRi*), 183
- **tañiRi* ‘*Scomberomorus commerson*,
Spanish mackerel’, 114
- **taRaqañ* ‘*Holocentrus* spp.,
squirrelfish’, 17, 53
- **taRat* ‘*Naso* spp., unicornfish’, 102
- **taRutu[m,ŋ]* ‘porcupinefish, *Diodon*
sp.’, 125
- **tektek* ‘gecko, house lizard (onom.)’
(doublet **cekcek*), 256
- **tin[d]ap* ‘look intently’, 377
- **tiqaw* ‘goatfish’, 84
- **tiRem* ‘oyster (*Ostreidae*)’, 193
- **tumah* ‘clothes louse’, 375

**Proto Western Malayo-Polynesian
(PWMP)**

- **bekur* ‘coo, turtle dove’, 318
- **kepay-kepay* ‘flap (wings, fins of
fish, etc.)’, 276
- **kepek* ‘flap wings’, 276

**Proto Central–Eastern
Malayo-Polynesian (PCEMP)**

- **alali* ‘halibut, flounder’, 118
- **kandoRa* ‘cuscus’, 220, 225
- **kanzupay* ‘rat’, 231
- **kasawari* ‘cassowary’, 288
- **keRaŋ* ‘hawksbill turtle’, 250
- **mansar* ‘bandicoot, marsupial rat’,
220, 228
- **manser* ‘bandicoot, marsupial rat’,
220

**Proto Eastern Malayo-Polynesian
(PEMP)**

- **kalabaw* ‘rat, mouse’, 233
- **kuriap* ‘dolphin’, 245
- **niku(i)* ‘nest’, 279
- **wakin* ‘wallaby’, 222

Proto Oceanic (POc)

- **alali* ‘flatfish incl. flounders, soles’,
see *[l]alali
- **ane* ‘termite’, 394
- **baba(ŋ)* ‘rock cod or grouper’, 65
- **babu* ‘*Cheilinus* spp., Maori wrasse’,
93
- **bakewa* ‘shark (generic)’, 29, 30,
129, 144, 148, 150
- **balaki* ‘*Acanthurus* and *Naso* spp.’,
see *bala(ŋ,k)i
- **bala(ŋ,k)i* ‘*Acanthurus* and *Naso*
spp.’, 107, 146, 148
- **baluc* ‘pigeon, *Ducula* sp.’, 313
- **banic* ‘arm, hand, wing, fin
(probably pectoral)’, 132, 275
- **b(a,e,i)risu* ‘Buff-banded Rail,
Rallus philippensis’, 308
- **bati* ‘tusk, canine tooth’, 266
- **bebek* ‘butterfly, moth’, see
*[kau]bebek
- **bebek* ‘generic for Chaetodontidae,
coralfish and butterflyfish’, 89,
145, 148
- **berisu* ‘Buff-banded Rail, *Rallus*
philippensis’, see *b(a,e,i)risu
- **bili* ‘k.o. lizard’, 257
- **binam* ‘hornbill’, 339
- **bi[r,R]apa* ‘*Acanthurus lineatus*,
blue-lined surgeonfish’, 103
- **birisu* ‘Buff-banded Rail, *Rallus*
philippensis’, see *b(a,e,i)risu
- **biRa* ‘roe, fish eggs’, 129
- **bobo(ŋ)* ‘butterfly’, see
*[kali]bobo(ŋ)
- **bo(dr,d)a* ‘turtle shell’, 268
- **bogi* ‘large bird of prey sp., possibly
sea eagle’, 298
- **b(o,u)kas(i)* ‘pig’, 239
- **bolo* ‘small dark surgeonfish,
possibly *Ctenochaetus*’, 105
- **bona* ‘pigeon, *Ducula* sp.’, 313
- **boRok* ‘pig, *Sus scrofa*’, 238
- **bubu* ‘*Balistes* taxon, triggerfish’,
122, 147
- **bubu* ‘k.o. wasp’, 389
- **bukas(i)* ‘pig’, see *b(o,u)kas(i)

- **bula* ‘k.o. sea cucumber’, *see*
 *(*p,b*)*ula*
 **buli* ‘pufferfish’, 127
 **buli(q)* ‘generic for cowries’, 185
 **bunaR* ‘batfish, *Platax* sp. or spp.,
 possibly *Naso* sp. or spp.’, 88,
 145, 148
 **bune* ‘pigeon, dove’, 310
 **buŋa* ‘smooth round coral’, 208
 **buRi-buRi* ‘k.o. fish, possibly
 angelfish’, 90
 **buRua* ‘*Murex* sp.’, 188
 **butir* ‘pigeon sp.’, 316
 **b^walup* ‘k.o. eel, moray eel?’, 44
 **b^wa[p,w]a* ‘*Lutjanus* spp., snapper’,
 76
 **b^wa[p,w]a* ‘snapper, *Lutjanus* spp.’,
 146, 148
 **b^wara-wa(r,d,dr,R)a(q)* ‘*Sphyræna*
 sp., possibly *S. jello*, the slender
 or pickhandle sea pike’, 63
 **b^waReu* ‘*Ostracion*, boxfish’, 124
 **[b^waRu]b^waRu* ‘*Balistes* taxon,
 triggerfish’, 122, 123
 **b^wasa* ‘pig, possibly sow’, 239
 **b^wa(s,j)i* ‘moray eel’, 146, 148, *see*
 **[la]b^wa(s,j)i*
 **b^wawa* ‘snapper, *Lutjanus* spp.’, *see*
 **b^wa[p,w]a*
 **b^weka* ‘flying fox, large fruit bat’,
 235
 **b^woe-b^woe* ‘pufferfish’, 127
 **b^wos* ‘*Scarus* sp., k.o. parrotfish’, 98
 **b^walaRe* ‘Purple Swamphen,
 Porphyrio porphyrio’, 307, 308
 **b^waŋ* ‘sea eagle’, 298
 **b^waro* ‘heron, probably *Egretta* sp.’,
 291
 **b^waruruk* ‘pigeon or dove sp.’, 320
 **b^wauro* ‘tern’, 367
 **b^wiru* ‘Purple Swamphen, *Porphyrio*
 porphyrio’, 308
 **b^wisu* ‘Shining Starling, *Aplonis*
 metallica’, 348
 **daula* ‘frigate bird’, *see* *(*dr,d*)*aula*
 **doloq* ‘k.o. eel’, *see* *(*t,d*)*oloq*
 **don(o,u)* ‘spotted rock cod, taxon
 including *Cephalopholis* and
 Plectropomus spp.’, 66, 146, 148
 **donu* ‘spotted rock cod, taxon
 including *Cephalopholis* and
 Plectropomus spp.’, *see*
 **don(o,u)*
 *(*dr,d*)*aula* ‘frigate bird’, 357
 *[*driu*]*driu* ‘small red or brown ants’,
 392
 **droman* ‘leech’, 207, 412
 **drudru(r,R)* ‘owl’, 331
 **dru* ‘ant’, 392
 **gaga* ‘k.o. spider’, *see* **gagao* ~
 *(*g,k*)*a(g,k)a-*
 **gagao* ~ *(*g,k*)*a(g,k)a-* ‘k.o. spider’,
 409
 *(*g,k*)*alau* ‘k.o. shore crab, possibly a
 grapsid sp.’, 177
 **gara* ‘gills’, 130
 **g(a)umu* ‘Fruit Dove, *Ptilinopus*
 sp.’, 315
 **golo* ‘tern’, 367
 **guma* ‘monitor lizard’, *see*
 *(*k,g*)*uma*
 **gumu* ‘Fruit Dove, *Ptilinopus* sp.’,
 see **g(a)umu*
 **gupuR* ‘pigeon or dove’, *see*
 *(*k,g*)*upuR*
 **ibo* ‘k.o. sandworm, probably
 Sipunculus sp.’, 210
 **ikan* ‘fish (generic)’, 28, 144, 148,
 150
 **ikan* ‘generic for fish (and certain
 other free-swimming aquatic
 creatures)’, 421, 428, 452
 **iku(R)* ‘tail, of quadruped, some
 birds and possibly fish’, 267, 277
 **ioli* ‘honeyeater’, 347
 **ipos* ‘cockroach’, 402
 **ipu* ‘hair, feather’, 274
 **jabiŋ* ‘*Acanthurus* spp., incl. *A.*
 guttatus, white-spotted
 surgeonfish’, *see* *[*s,j*]*abiŋ*
 **jaja* ‘small fish, herring or anchovy’,
 38

- **jalala* ‘*Rastrelliger*, k.o. small mackerel’, 115
- **japi* (1) ‘bivalve taxon, probably *P. maxima*, gold-lipped pearl shell’, (2) ‘ornament made from this’, 193
- **jiko* ‘kingfisher’, see *(s,j)iko
- **jinana* ‘whitebait’, 100
- **jipiu* ‘wader’, 359
- **jori* ‘squirrelfish, possibly generic’, 55
- **jumu* ‘Balistidae, triggerfish and possibly Monacanthidae, leatherjackets’, 121, 145, 148
- **kaba* (N) ‘wing’, (V) ‘flap wings’, 275
- **kabakabal* ‘swiftlet, *Aerodramus* or *Collocalia* spp.’, 334
- **kaboRa* ‘*Plotosus* spp., catfish’, 42
- **kaboRa* ‘catfish-eel, *Plotosus* sp.’, 147, 148
- **kadik* ‘stinging black ant’, 390
- **k(a)iau* ‘Bismarck Scrub Fowl, *Megapodius eremita*’, 306
- **kaka* ‘k.o. spider’, see *gagao ~ *(g,k)a(g,k)a-
- **kakawa* ‘goby, blenny’, 99
- **kalapo* ‘rat taxon’, 233
- *[kāl]bobo(η) ‘butterfly’, 378
- **kalika* ‘Epinephelidae, rock cod’, 67
- **kalipa(s)* ‘large monitor lizard, *Varanus indicus* and possibly other species’, see *ka(r,l)(i,u)pa(s)
- *(k,q)ali-totop ‘firefly’, 399
- **kalo* ‘growth stage of goatfish’, 86
- **kalupa(s)* ‘large monitor lizard, *Varanus indicus* and possibly other species’, see *ka(r,l)(i,u)pa(s)
- **kamak* ‘beetle, possibly longicorn’, 401
- **kamaRi* ‘*Elagatis bipinnulata*, rainbow runner’, 72
- **kam(a,i,u)tuq* ‘*Bolbometopon*, double-headed parrotfish’, 96
- **kamituq* ‘*Bolbometopon*, double-headed parrotfish’, see *kam(a,i,u)tuq
- **kamutuq* ‘*Bolbometopon*, double-headed parrotfish’, see *kam(a,i,u)tuq
- **kanase* ‘mullet spp. including *Valamugil cunnesius*’, 58, 145, 148
- **kanawe* ‘tern, *Sterna* spp.’, 365
- **kao(i)* ‘heron, probably *Egretta* sp.’, 289
- *(kao)kao ‘crow, *Corvus* sp.’, 350
- **kaopa* ‘heron, probably *Egretta* sp.’, 289
- **kape* ‘crab taxon, probably a rock crab (*Grapsidae*)’, 175
- **kapi-kapi* ‘pectoral fins’, 133
- **kapoRu* ‘k.o. lizard’, 259
- **karawa* ‘green parrotfish spp.’, see *[m,k]arawa
- *(ka)renas ‘small parrot sp.’, 326
- **ka(r,l)(i,u)pa(s)* ‘large monitor lizard, *Varanus indicus* and possibly other species’, 254
- **karipa(s)* ‘large monitor lizard, *Varanus indicus* and possibly other species’, see *ka(r,l)(i,u)pa(s)
- **karupa(s)* ‘large monitor lizard, *Varanus indicus* and possibly other species’, see *ka(r,l)(i,u)pa(s)
- **kaRa* ‘male Eclectus Parrot, *Eclectus roratus*’, 322
- **kaRaka* ‘k.o. crab, possibly rock crab.’, 177
- **kaRapa* ‘k.o. fish’, 59
- **kaRi* ‘bivalve sp. or spp, possibly cockle, used as a scraper’, 191
- *(k,q)aRua(s) ‘mullet (generic)’, 59, 147, 148
- **kaRuki*, (dbl. **kaRuiki*) ‘ghost crab, *Ocypoda* sp., small white crab found on sandy beaches’, 176
- **kasi* (V) ‘to scrape; scraper or grater made from robust circular bivalve

- shell, such as *Asaphis* and cockles', (N) 'shellfish taxon, esp. *Asaphis* spp.', 191
- **kasika* 'large emperor, *Lethrinus* sp.', 81, 146, 148
- **kasuari* 'Dwarf Cassowary, *Casuarius bennetti*', 288
- *(*k,q*)*asuli* 'k.o. sea eel', 47
- **kasupe*, **kusupe* 'rat taxon, probably *Rattus exulans* and possibly other small commensal sp. or spp.', 231
- **katapa* 'frigate bird', 358
- **katawan* '*Acanthurus*, surgeonfish', 103
- **kato(q)u* 'hermit crab', 171
- *[*kau*]*bebek* 'butterfly, moth', 378
- **kawa-kawa* 'rock cod, grouper', 66, 80
- **kawano* 'k.o. fish, probably *Lethrinus* sp.', 83
- **kawe* 'tentacle of a cephalopod', 201
- **kepV* '*Lutjanus* spp., sea perch', see **k(i,e)pV*
- **kep^wa* 'Clupeidae, probably sardine sp.', 40
- **ker(a,e)(ker(a,e))* 'tern', 366
- **kere(kere)* 'tern', see **ker(a,e)(ker(a,e))*
- **keRan* 'hawksbill turtle, *Eretmochelys imbricata*', 250, 323
- **kiau* 'Bismarck Scrub Fowl, *Megapodius eremita*', see **k(a)iau*
- **kiki* 'kingfisher', 338
- **kikio* 'kingfisher', see **ki(o)kio*
- **kima* 'giant clam, *Tridacna* spp., include. *T. gigas*', 189
- **kini-t* 'to pinch', 382
- **ki(o)kio* 'kingfisher', 338
- **k(i,e)pV* '*Lutjanus* spp., sea perch', 78
- **kirau* '*Scarus* spp.', see **kir[i,au]*
- **kir[i,au]* '*Acanthuridae*', 105
- **kiRa* 'White Tern, *Gygis alba*', 366
- **kiRak* 'parrot sp.', 323
- **kiso* 'Crested Baza, *Aviceda subcristata*', see **ki(t,s)o*
- **ki(t,s)o* 'Crested Baza, *Aviceda subcristata*', 300
- **kitoŋ* '*Siganus* sp., possibly '*Siganus punctatus*, gold-spotted spinefoot', 108
- **koba* 'hermit crab', 171
- **kobu(ŋ)* 'middle, waist, belly', 134
- **koko* 'spider', 410
- **kokorako* 'fowl, *Gallus gallus*, esp. male', 284
- **koŋo(k)* 'hornbill', 340
- **koran* 'emperor, *Lethrinidae*', 83
- **koro* 'gills', 130
- **kororo* 'bee', 387
- **kosa* 'k.o. parrotfish', 97
- **koto(ŋ)* 'large rock cod or grouper, *Epinephelus* sp.', 65, 146, 148
- **kuba* 'pigeon, probably *Ducula* sp.', see **ku(i)ba*
- **ku(i)ba* 'pigeon, probably *Ducula* sp.', 311
- **kuka* 'mudcrab, including *Sesarma* sp. or spp., living in mangrove forest and mudflats', 174
- **kuk(o,u)* 'k.o. lizard', 258
- **kuku* 'k.o. lizard', see **kuk(o,u)*
- **kuku* 'nail (of hand or foot), claw', 278
- **kuku(r)* 'mussel sp. or spp., used as food grater or scraper', 192
- **kulabo* '*Lethrinidae*', 81
- **kulabo* 'snapper sp. or spp.', 145, 148
- *(*k,q*)*ulapi* 'parrotfish spp., incl. *Hipposcarus longiceps*, long-nosed parrotfish', 81, 95
- *(*k,q*)*ulapi* 'parrotfish spp., incl. *Hipposcarus longiceps*, longnosed parrotfish', 146, 148
- *(*kulu*)*kulu* 'pigeon sp.', see *(*ku(r,l)u*)*ku(r,l)u*
- *(*k,g*)*uma* 'monitor lizard', 254
- *(*k,q*)*umutuR* '*Plectorhinchus* spp., sweetlips', 80, 146, 148

- *(k,g)upuR 'pigeon or dove', 316
 *kura'u 'pigeon sp.', 319
 *ku(r;R)iap 'dolphin', 245
 *kurudu 'owl', see *kuru(dr;d)u
 *kuru(dr;d)u 'owl', 330
 *(ku(r;l)u)ku(r;l)u 'pigeon sp.', 319
 *kuru[ru] 'Myripristis spp.,
 squirrelfish', 54
 *kuRapu 'rock-cod, *Epinephelus* sp.
 or spp. including *E. lanceolatus*,
 Queensland grouper', 145, 148
 *kuRapu 'rock-cod, *Epiphenelus* sp.
 or spp. including *E. lanceolatus*,
 Queensland grouper', 64
 *kuRau 'frog taxon', 263
 *kuRita 'generic for octopus', 199
 *kuRo 'bony fish, probably *Albula*',
 36
 *kutu (1) 'louse (generic)', (2) 'head
 louse', 374
 *(k^(w),g)i(l,n)e 'Singing Parrot,
Geoffroyus heteroclitus', 327
 *k^(w)adroRa 'phalanger, cuscus', 225
 *k^warawa 'k.o. shark', 32
 *k^waru 'Sardinella, sardine', 39
 *k^waru-k^waru 'cockroach', 403
 *[k^we]k^wek^we 'k.o. frog', 264
 *k^(w)ilo(ki) 'female Eclectus Parrot',
 323
 *k^walau 'Bismarck Scrub Fowl,
Megapodius eremita', see
 *k^wal(i)au
 *k^wal(i)au 'Bismarck Scrub Fowl,
Megapodius eremita', 306
 *la(b,p)(o,u) 'rat taxon', 232
 *labu 'rat taxon', see *la(b,p)(o,u)
 *[la]b^wa(s,j)i 'moray eel', 44
 *laci 'Scomberoides spp., leatherskin,
 including *S. lysan*', 71, 145, 148,
 151
 *laje 'generic for branching corals',
 208
 *laki 'fantail', 343
 *lala(k) (1) '*Trochus* spp., including
T. niloticus and possibly *T.*
stellatus', (2) 'rings or armlets
 made of this', 186
 *[l]alali 'flatfish incl. flounders,
 soles', 118
 *l(a,e)le 'cicada', 397
 *((l,R)(a,u))muk^(w)o 'dove sp.', 316
 *lajo 'fly', 385
 *lapaq 'various flat fishes incl. sole
 and flounder', 118
 *lapo 'rat taxon', see *la(b,p)(o,u)
 *lapu 'rat taxon', see *la(b,p)(o,u)
 *lau '*Plectorhinchus* spp., banded
 sweetlips', 80
 *lawaq 'spider, spider web', 409
 *lawe 'tail feather, plume', 274
 *lele 'cicada', see *l(a,e)le
 *lio-lio '*Pseudobalistes fuscus*,
 brown triggerfish', 123
 *[l,n]ipon 'tooth, tusk', 266
 *lisaq 'nit', 375
 *loRo 'large stinging red ant', 391
 *lumuk^(w)o 'dove sp.', see
 *((l,R)(a,u))muk^(w)o
 *magaRut 'flying fish', 147, 148
 *maka(o,u)r 'Kyphosidae, drummer',
 87
 *makaur 'Kyphosidae, drummer', see
 *maka(o,u)r
 *ma(k,q)eto 'a dark fish, possibly
Ctenochaetus striatus', 106
 *ma-kini(t) 'mosquito', 382
 *mala 'resembling', 72
 *malayo 'sea eel, possibly generic',
 46
 *maleŋa 'k.o. parrotfish', see
 *me[l,n]aŋa~*ma[l,n]eŋa
 *mali-boŋi 'flying fox', 236
 *mali-b^weka 'flying fox, large fruit
 bat', 236
 *malisa 'barracuda', 62
 *(ma)manu '*Scarus* spp.', 98
 *mamin '*Cheilinus undulatus*,
 double-headed Maori wrasse and
 possibly other wrasse spp.', 92,
 147, 148, 160
 *mamula 'carangid', 70

- *manak(V)* ‘green turtle, *Chelonia mydas*’, 251
**manēja* ‘k.o. parrotfish’, *see*
**me[l,n]aŋa~*ma[l,n]eŋa*
**manu* ‘*Scarus* spp.’, *see* **(ma)manu*
**manuk* (1) ‘flying creature’, (2)
 ‘animal’, 271, 416, 421, 443, 444,
 446, 447, 449, 452
**manuk* ‘Red Jungle-fowl, *Gallus gallus*’, 284
**manuka* ‘sea eagle’, 297
**manuk-lapuat* [‘big bird’]
 ‘White-bellied Sea Eagle,
Haliaeetus leucogaster’, 297
**manu-manuk* ‘general term for
 insects and other small land
 invertebrates’, 416, 421, 450–452
**m(a,o)nuRV* ‘*Naso* sp., unicornfish’,
 102
**mañipo* ‘k.o. wasp’, 389
**majewa* ‘k.o. shark’, 29, 31, 129
**maqeto* ‘a dark fish, possibly
Ctenochaetus striatus’, *see*
**ma(k,q)eto*
**[m,k]arawa* ‘green parrotfish spp.’,
 97
**marawa* ‘spinefoot sp.’, 110
**marewe* ‘parrot’, 328
**marotV* ‘*Nemipterus* spp.’, 79
**maRa* ‘*Acanthurus* sp., possibly *A.*
xanthopterus, yellowfin
 surgeonfish’, 103
**mata* ‘the operculum or trapdoor of
 certain gastropod spp.’, 201
**maya* ‘Osprey, *Pandion haliaetus*’,
 299
**me[l,n]aŋa~*ma[l,n]eŋa* ‘k.o.
 parrotfish’, 97
**menaja* ‘k.o. parrotfish’, *see*
**me[l,n]aŋa~*ma[l,n]eŋa*
**merari* ‘wrasse or parrotfish’, 94
**midi* ‘honeyeater’, 346
**mimis-mata* ‘stick insect’, 398
**moa* ‘boxfish’, 124
**mo(g,k)o* ‘k.o. snake’, 260
**moko* ‘k.o. snake’, *see* **mo(g,k)o*
**monuRV* ‘*Naso* sp., unicornfish’, *see*
**m(a,o)nuRV*
**muk^(w)o* ‘dove sp.’, *see*
**((l,R)(a,u))muk^(w)o*
**muno[-muno]* ‘caterpillar, grub’, 405
**muqu(ŋ)* ‘*Siganus* taxon, poss. *S.*
spinus’, 109, 146, 148
**muroR* ‘*Siganus argenteus*, silver or
 rabbit-faced spinefoot’, 110
**musi* ‘cockroach’, 403
**mutu* ‘Pomacentridae, particularly
Abudefduf’, 90
**m^wacasi* ‘goatfish’, 85
**m^wagaRut* ‘Exocoetidae, flying
 fish’, 48
**m^wajar* ‘bandicoot’, 228
**m^wakoR* ‘*Hemiramphus*, garfish’, 50
**m^wanagi*, **m^wam^wagi* ‘larger
 cuttlefish, *Sepia* sp. or spp.’, 200
**m^wata* ‘snake (generic)’, 259
**m^wata-m^wata* ‘generic for worms
 and worm-like creatures’, 412
**m^walau* ‘Bismarck Scrub Fowl,
Megapodius eremita’, 305
**(n,ñ)iku~*nuki* ‘nest’, 279
**(n,ñ)i(n,ñ)i* ‘bee, buzzing insect’,
 388, 389
**(n,ñ)i(n,ñ)ipo* ‘k.o. wasp’, 390
**niku-niku* ‘small biting fly’, 383
**nipe* ‘snake’, 259
**nipon* ‘tooth, tusk’, *see* **[l,n]ipon*
**nonok* ‘sandfly, midge’, 384
**nopuq* ‘*Synanceia*, stonefish’, *see*
**((ñ,n)opuq*
**nuki* ‘nest’, *see* **(n,ñ)iku~*nuki*
**nus* ‘squid’, 200
**nusa* (doublet **nus*) ‘small reef
 squid (*Loligo* spp.) and smaller
 cuttlefish (*Sepia* spp.)’, 200
**((ñ,n)opuq* ‘*Synanceia* spp.,
 stonefishes’, 119
**((ñ,n)opuq* ‘*Synanceia* spp.,
 stonefish’, 145, 148, 150, 418
**ñamuk* ‘mosquito’, 380
**ñiku* ‘nest’, *see* **(n,ñ)iku~*nuki*

- **ñiñi* ‘bee, buzzing insect’, *see*
 *(*n, ñ*)*i*(*n, ñ*)*i*
 **ñiñipo* ‘k.o. wasp’, *see*
 *(*n, ñ*)*i*(*n, ñ*)*ipo*
 **ηako* ‘Night Heron, *Nycticorax* sp.’,
 293
 **ηaRa* ‘duck’, 293
 **ηiji* ‘sandfly’, *see* **ηi*(*s, j*)*i*
 **ηiηi*(*η*) (1) ‘buzz as a mosquito’, (2)
 ‘mosquito’ (onomatopoeic), 383
 **ηi*(*s, j*)*i* ‘sandfly’, 384
 **ηuju* ‘mouth, lips, snout, beak’, 277
 *[*oka*]*oka* ‘k.o. fish, possibly
Lethrinus spp., 83
 **paba* ‘*Parribacus* sp. (*Scyllaridae*),
 slipper lobster’, *see* *[*pa*]*paba*
 **palaja* ‘rabbitfish, *Siganus* spp.’,
 145, 148
 **palaja* ‘*Siganus* spp., rabbitfish’, 109
 **palata* ‘*Coryphaena hippurus*,
 dolphinfish’, 73, 146, 148
 **paliR* ‘*Acanthurus*, surgeonfish’, *see*
 *[*qa*]*paliR*
 **panapa* ‘garfish and needlefish
 taxon’, 51, 147, 148
 **p*(*a, e*)*ηa* ‘red *Lutjanus* spp.’, 77
 **paηoda* ‘gather seafood on the reef’,
 162
 **papa* ‘praying mantis’, 398
 *[*pa*]*paba* ‘*Parribacus* sp.
 (*Scyllaridae*), slipper lobster’,
 167
 **pa*(*R, r*)*a*(*C*) ‘frog’, 263
 **paRi* (1) ‘stingray’, (2) ‘ray
 (generic)’, 34, 144, 148, 150
 **paRi-manuk* ‘*Aetobatus narinari*,
 spotted eagle ray’, 35
 **paRi-manuk* ‘spotted eagle ray,
Aetobatus narinari’, 147, 148,
 159
 **paya* ‘k.o. small fish, sardine or
 anchovy’, 38, 147, 148
 **peηa* ‘red *Lutjanus* spp.’, *see*
 **p*(*a, e*)*ηa*
 **pilu* ‘*Caranx* sp. or spp., trevally’,
 69, 145, 148, 151
 **p*(*in*)*aηoda* ‘seafood gathered on the
 reef, edible sea invertebrates’,
 421, 437–439, 452
 **p*(*in*)*aηoda*, **piηoda* ‘seafood
 gathered on the reef, edible sea
 invertebrates’, 162
 **piRa*(*q*) ‘*Zebrasoma veliferum*,
 sailfin tang’, 103
 **piRu-piRu* ‘*Istiophoridae*’, 117
 **piRu*(*q*) ‘fan palm’, 117
 **poñu* ‘turtle (generic)’, 249
 **pora* ‘owl’, 332
 *[*poto*]*poto* ‘pufferfish,
 porcupinefish’, 126
 **pud*(*o, u*) ‘species of possum or
 cuscus’, *see* **pu*(*dr, d, j*)(*o, u*)
 **pu*(*dr, d, j*)(*o, u*) ‘species of possum or
 cuscus’, 226
 **pui*(*o, u*) ‘species of possum or
 cuscus’, *see* **pu*(*dr, d, j*)(*o, u*)
 *(*p, b*)*ula* ‘k.o. sea cucumber’, 204
 **pulan* ‘bony fish, *Megalops*, *Albula*
 spp.’, *see* **pu-pulan*
 **pulu* ‘body hair, fur, feathers’, 273
 **pupuk* ‘k.o. borer wasp or bee that
 infests wood and bamboo’, 388
 **pu-pulan* ‘bony fish, *Megalops*,
Albula spp.’, 37
 **puqaya* + modifier ‘seahorse’, 56
 **puqaya* ‘crocodile’, 252
 **puRa-puRas* ‘whale’, 243
 **puRu*(*q*) ‘quail’, 307
 **pusiRa* ‘Starling, *Aplonis* sp.’, 348
 **p^walapo* ‘rat taxon’, 233
 **p^wipipi* ‘small wader taxon’, 360
 **p^wiri*(*p*) ‘parrot sp.’, 326
 **p^wisu* ‘Cuckoo-shrike, *Coracina* sp.’,
 342
 **qaliliη* ‘*Turbo petholatus*, tapestry
 turban; possibly generic for
 several or all *Turbo* spp.’, 182
 **qalimaηo* ‘large mangrove crab,
Scylla serrata (*Portunidae*) and
 probably other portunids’, 172
 **qalipan* ‘centipede’, 406
 **qali-popot* ‘firefly’, 399

- **qali-totop* ‘firefly’, *see*
 *(*k,q*)*ali-totop*
- **qalu* ‘*Sphyræna* taxon, incl. *S. barracuda*, great barracuda’, 62, 144, 148
- **qanupe* ‘caterpillar or k.o. sea cucumber (indeterminate)’, 206, 405
- *[*qa*]*paliR* ‘*Acanthurus*, surgeonfish’, 103
- **qapator* ‘sago grub, edible’, 404
- **qaroyo* ‘surgeonfish, *Acanthurus* sp.’, 104, 147, 148
- **qaRua(s)* ‘mullet (generic)’, *see*
 *(*k,q*)*aRua(s)*
- **qasaj* ‘gills’, 129
- **qasuli* ‘k.o. sea eel’, *see* *(*k,q*)*asuli*
- **qatoluR* ‘egg’, 278
- **qatule* ‘*Selar* spp. including *S. crumenophthalmus*, big-eyed scad’, 69, 145, 148, 151
- **qatun* ‘*Katsuwonus pelamis*, skipjack tuna’, 112, 148, 150, 160
- **qawaq* ‘*Chanos chanos*, milkfish’, 41, 144, 148, 160
- **qayuyu* ‘coconut crab, *Birgus latro*’, 169
- **qonos* ‘mature *Sphyræna* spp., possibly generic for all barracuda’, 61, 144, 148
- **qulapi* ‘parrotfish spp., incl. *Hipposcarus longiceps*, long-nosed parrotfish’, *see*
 *(*k,q*)*ulapi*
- **quloc* ‘maggot’, 414
- **quloc-a(n)* ‘be maggoty’, 415
- **qulo-quloc* ‘full of maggots’, 416
- **qulua* ‘carangid’, 70
- **qulua* ‘*Caranx* sp., possibly *C. ignobilis*, big-headed jack (Carangidae)’, 151
- **qulua* ‘*Caranx* sp., possibly *C. ignobilis*, big-headed jack’, 145, 148
- **qume* ‘*Naso unicornis*, long-snouted unicornfish’, 101, 146, 148, 160
- **qumutuR* ‘*Plectorhinchus* spp., sweetlips’, *see* *(*k,q*)*umutuR*
- **qum^waj* (1) ‘generic for hermit crabs’, ? (2) ‘generic for hermit and coconut crabs’, 170
- **qunap[i]* ‘fishscale’, 131
- **qupa* ‘hen’, 287
- **quraj* ‘generic for prawns and shrimps, crayfish and lobsters’, 165, 167, 168
- **qutur* ‘*Aprion virescens*, green jobfish’, 75
- **qutur* ‘*Sphyræna* sp., barracuda’, 63
- **rakum(u)* ‘k.o. large crab, probably a land crab’, 173
- **renas* ‘small parrot sp.’, *see*
 *(*ka*)*renas*
- **rija* ‘orthopterous insect’, 395
- **roqa* ‘eagle’, 299
- **roRo* ‘growth stage of *Siganus* spp.’, 109
- **ruyuj* ‘dugong’, 247
- **Ramuk^(w)o* ‘dove sp.’, *see*
 *((*l,R*)(*a,u*))*muk^(w)o*
- **Raja* ‘*Lambis* spp., esp. spider conch, *Lambis lambis*’, 181
- **Rije* ‘*Hemiramphus*, halfbeak’, 49
- **Ropak* ‘fly, jump’, 281
- **Rumuk^(w)o* ‘dove sp.’, *see*
 *((*l,R*)(*a,u*))*muk^(w)o*
- **saba(l)* ‘petrel or albatross’, 352
- *[*s,j*]*abin* ‘*Acanthurus* spp., incl. *A. guttatus*, white-spotted surgeonfish’, 104
- **sabutu* ‘snapper (*Lutjanus*) or emperor (*Lethrinus*) sp. or spp.’, 76, 83, 144, 148
- **saku* ‘needlefishes, garfishes, long toms (Belonidae)’, 51
- **saku* ‘needlefish, garfish, long toms (Belonidae)’, 116, 144, 148
- **saku-layaR* ‘sailfish’, 116, 144, 148, 159
- **sak^wa* ‘grasshopper or stick insect’, 396

- **sala(n,ŋ)* ‘k.o. sea urchin with long black spines, probably *Diadema* sp. or spp.’, 203
- **salan* ‘k.o. sea urchin with long black spines, probably *Diadema* sp. or spp.’, *see* **sala(n,ŋ)*
- **sana-sana* ‘a starfish’, 206
- **sao* ‘k.o. long tom’, 52
- **sapulu* ‘goatfish spp.’, 86
- **sapulu(q)* ‘bivalve mollusc, possibly *Pinna* sp.’, 195
- **sara(Ra)* ‘sardine-like fish, possibly *Atherinidae*’, 60
- **saRawaki* ‘k.o. sea urchin, probably *Echinometra* sp. or spp.’, 203
- **sau* ‘Golden Whistler, *Pachycephala pectoralis*’, 345
- **s(a,i)waRa* ‘Clupeidae, sardine or herring’, 40
- **seke* ‘cuckoo, possibly *Centropus* sp.’, 329
- **sele(kai)* ‘tern’, 366
- **seŋa* ‘parrot sp.’, 327
- **siko* ‘grasshopper’, 396
- **(s,j)iko* ‘kingfisher’, 336
- **simuk* ‘mosquito, small biting fly’, 382
- **sipa* ‘*Hemiramphus* spp.’, 50
- **sipi* ‘parrot, perhaps Cardinal Lory, *Chalcopsitta cardinalis*’, 324
- **sipi(r;R)i* ‘Rainbow Lory, *Trichoglossus haematodus*, or Cardinal Lory, *Chalcopsitta cardinalis*’, 324
- **siri* ‘parrot, perhaps Cardinal Lory, *Chalcopsitta cardinalis*’, 325
- **siRiko* ‘fish fin’, 134
- **sisiq* (1) ‘various small, snail-like gastropods of nerite family’, (2) ‘probably generic for a wider class of edible gastropods’, 184, 421, 439–441, 443, 452
- **sisi(rR)* ‘orthopterous insect’, 395
- **siwaRa* ‘Clupeidae, sardine or herring’, *see* **s(a,i)waRa*
- **sou* (?) ‘heron’, 291
- **sua-sua* ‘goatfish’, 85
- **sulati* ‘worm’, 413
- **suli(k)* ‘*Caesionidae*, fusilier’, 74
- **surup* ‘*Lethrinus* spp.’, 82
- **susul* ‘*Lethrinus* spp.’, 82
- **tabuRuRu* ‘k.o. beetle’, 401
- **takere* ‘Fantail, *Rhipidura* sp.’, 343
- **taku(a,o)* ‘*Thunnus albacares*, yellowfin tuna’, 115
- **taku-takun* ‘small coral fish, damselfish or similar’, 91
- **taliŋa* ‘ear’, 133
- **taliŋa* ‘pectoral fins’, 133
- **tanipa* ‘*Sardinella* spp., sardine’, 38, 146, 148
- **tanapa(R,r)* ‘large wrasse, including *Cheilinus* sp.’, 93, 147, 148
- **tanjiRi* ‘Scombridae spp., prob. incl. *Scomberomorus commerson*, narrow-barred Spanish mackerel, and *Acanthocybium solandri*, wahoo’, 114
- **tanjiRi* ‘Scombridae spp., prob. incl. *Scomberomorus commerson*, the narrow-barred Spanish mackerel, and *Acanthocybium solandri*, wahoo’, 144, 148
- **tape* ‘k.o. bivalve’, 196
- **tapu* ‘Labridae sp.’, 94
- **tapuRiq* (1) ‘generic for conch shells, esp. triton’s trumpet, *Charonia tritonis* and allied spp.; possibly extended to some *Cassis* (helmet) shells’, (2) ‘trumpet of *Charonia* shell’, 183
- **tapu(s)*, **tapus-i-* ‘seek lice’, 377
- **tap^(w)a* ‘glide, soar’, 281
- **taqe* ‘excrement’, 406, 408
- **taqea* ‘*Lutjanus* spp., snapper, sea perch’, *see* **ta(Ra)qea*
- **taragau* ‘fish-eating eagle or hawk’, 296
- **taRaqa* ‘*Sargocentron* spp., squirrelfish, including *S. spiniferum*’, 17, 53, 145, 148

- **ta(Ra)qea* ‘*Lutjanus* spp., snapper, sea perch’, 77
 **taRat* ‘*Naso* spp., incl. *N. brevirostris*, short snouted unicornfish’, 102, 147, 148
 **taRutu(m,ŋ)* ‘*Diodon* spp., porcupinefish’, 125, 145, 148
 **tasiwa* ‘*Lutjanus* spp.’, 77, 146, 148
 **tau(p)* ‘lay egg’, 280
 **taup-i-* ‘sit on eggs’, 280
 **tipi-tipi* ‘Chaetodontidae’, 89
 **tiqo* ‘goatfish sp. or spp.’, 84, 145, 148
 **tiro(p)*, **tirop-i-* ‘look intently, look for (lice etc.)’, 377
 **tiRom* ‘oyster (Ostreidae, Isognomonidae)’, 193
 **tok*, **totok* ‘gecko’, 256
 **toki* ‘peck’ (also perhaps of fish nibbling at bait), 281
 *(*t,d*)*oloq* ‘k.o. eel’, 47
 **toqa* ‘fowl’, 285
 **toqa* ‘k.o. fish with toxic flesh, probably *Ostracion*’, 124
 **totok* ‘gecko’, see **tok*, **totok*
 **tuasi* ‘bivalve taxon, probably ark or cockle shell; possibly also grater or spoon made from this’, see **tu(qu)asi*
 **tubaRa* ‘probably generic for large land crabs, *Cardisoma* spp.’, 173
 **tue*, **tue-tue* ‘k.o. bivalve, possibly Lucinidae and allied families’, see **tu(q)e*, **tu(q)e-tu(q)e*
 **tuma* ‘body louse’, 375
 **tuna* ‘Anguillidae, freshwater eel (generic)’, 43, 144, 148
 **tu(q)e*, **tu(q)e-tu(q)e* ‘k.o. bivalve, possibly Lucinidae and allied families’, 195
 **tu(qu)asi* ‘bivalve taxon, probably ark or cockle shell; possibly also grater or spoon made from this’, 197
 **wake* ‘k.o. lizard, possibly a monitor’, see **wak(i,e)*

- **wak(i,e)* ‘k.o. lizard, possibly a monitor’, 254
 **wakin* ‘wallaby’, 222
 **walu* ‘Scombridae sp. or spp.’, 114, 144, 148
 **weli* (1) ‘fireworm, sea centipede’, (2) ‘? k.o. millipede or centipede’, 211
 **woku* ‘Cuckoo Dove, *Macropygia* sp.’, 317
 *(*y*)*aro(q)* ‘black-lipped pearl, *Pinctada maxima*’, possibly generic for *Pinctada* spp., 194

Proto Oceanic (?)

- **kikiora* ‘Dollar Bird, *Eurystomus orientalis*’, see **kikiroa*~**kikiora*
 kikiroa*~kikiora* ‘Dollar Bird, *Eurystomus orientalis*’, 339
 **luar* ‘eagle’, 301
 **p^wa(r,R)a* ‘hawk’, 302
 **rato* ‘whale’, 243
 **ta(ou)k* ‘hawk, bird of prey’, 302

Proto Admiralty (PAdm)

- **baraŋ*~**rabaŋ* ‘tern’, 368
 **manuai* ‘sea eagle’, see **manu(w)ai*
 **manu(w)ai* ‘sea eagle’, 298
 rabaŋ* ‘tern’, see **baraŋ*~rabaŋ*
 **watiRi* ‘monitor lizard, *Varanus* spp.’, 255

Proto Western Oceanic (PWOC)

- **bebelo* ‘butterfly’, 379
 **bio* ‘k.o. mollusc or pearl shell’, 196
 **didi* ‘small ant’, 393
 **gumu* ‘k.o. wasp’, 390
 **kabilak^wa* ‘k.o. spider’, see **ka(p,b)ilak^wa*
 **ka(l,R)aŋa(r,R)* ‘male Eclectus Parrot, *Eclectus roratus*’, 322
 **kam^waga* ‘eagle, hawk’, 302
 **ka(p,b)ilak^wa* ‘k.o. spider’, 411
 **kapuna* ‘dog’, 241
 **kaRaŋa(r,R)* ‘male Eclectus Parrot, *Eclectus roratus*’, see **ka(l,R)aŋa(r,R)*
 **ka(R,r)oma* ‘nit’, 376
 **ka(u,w)ak* ‘dog’, 242

- **kipa* ‘hawk’, 302
- **ki(r,R)i-ki(r,R)i* ‘sandfly’, 385
- **kiwiwi* ‘sandpiper sp.’, 360, 363
- **komo* ‘hornbill’, 340
- **kotu* ‘rat’, 234
- **kuku* ‘spider’, 411
- **kuni* ‘? frog, tadpole’, 265
- **lejan* ‘nit’, 376
- **m^wali-X* ‘millipede’, 407
- **ɲati-ɲati* ‘mosquito’, 383
- **paRia* ‘k.o. big lizard’, 255
- **p^wi(r,R)itu(r,R,s)* ‘k.o. goatfish’, 86
- **qanupe* ‘sea cucumber, holothurian’, 206, 405
- **sibi* ‘k.o. snake’, 261
- **sio(R,r)a* ‘fish fin’, 134
- **ule(o)* ‘Dollar Bird, *Eurystomus orientalis*’, 339

Proto Western Oceanic (?)

- **paia* ‘dog’, 242

Proto New Guinea Oceanic (PNGOc)

- **dim^wan* ‘k.o. worm’, 414
- **joŋa* ‘(boar’s) tusk’, 267
- **ka(r,R)o(kV)* ‘crow’, 350
- **kisakisa* ‘hawk or eagle’, 301
- **makan* ‘wallaby, *Macropus agilis*’, 222
- **si(r,R)(a,e)si(r,R)(a,e)*,
**di(r,R)(a,e)di(r,R)(a,e)* ‘*Petaurus breviceps*, sugar glider’, 226

Proto North New Guinea (PNNG)

- **gavun* ‘dog’, 241
- **karok* ‘frog’, 264

Proto Papuan Tip

- **boqe* ‘heron, *Egretta* sp.’, 290
- **b^wayob^wayo* ‘crow’, 351
- **guma-kara* ‘monitor lizard’, *see*
**(k,g)uma-kara*
- **kakawe* ‘Sulphur-crested Cockatoo, *Cacatua galerita*’, *see*
**wakeke~*kakawe*
- **karai* ‘white cockatoo’, 321
- **kitave* ‘hawk’, 302
- **(k,g)uma-kara* ‘monitor lizard’, 254
- **qara-bembem* ‘butterfly’, 379
- **wagita* ‘wallaby’, 222

- **wakeke~*kakawe* ‘Sulphur-crested Cockatoo, *Cacatua galerita*’, 321

Proto Central Papuan

- **naniyo* ‘wasp’, 390

Proto Meso-Melanesian

- **game* ‘k.o. mollusc’, 196

Proto Meso-Melanesian ?

- **rokrok* ‘bullfrog’, 265

Proto NW Solomonic

- **belama* ‘frigate bird’, 359
- **(b,v)ili[ki(k,t)i]* ‘Beach Stone-Curlew, *Burhinus neglectus*’, 364
- **bili[kiti]* ‘Beach Stone-Curlew, *Burhinus neglectus*’, *see*
**(b,v)ili[ki(k,t)i]*
- **kakata* ‘sea eagle, *Haliaeetus*’, *see*
**katata~*kakata*
- **katata~*kakata* ‘sea eagle, *Haliaeetus*’, 299
- **pepele* ‘butterfly’, 379
- **pitikole* ‘fantail’, 343
- **vili[kiki]* ‘Beach Stone-Curlew, *Burhinus neglectus*’, *see*
**(b,v)ili[ki(k,t)i]*
- **vili[kiti]* ‘Beach Stone-Curlew, *Burhinus neglectus*’, *see*
**(b,v)ili[ki(k,t)i]*

Proto North Bougainville

- **kasi* ‘dog’, 241

Proto Eastern Oceanic (PEOc)

- **bakopu* ‘k.o. fish, possibly *Eleotris* sp.’, 100
- **(b,v)asua* ‘large shellfish, perhaps a bivalve’, 190
- **belik(e,i)o* ‘pigeon sp.’, 320
- **belikio* ‘pigeon sp.’, *see* **belik(e,i)o*
- **bona* ‘generic for various small Acanthuridae’, *see* **bon(e,a)*
- **bon(e,a)* ‘generic for various small Acanthuridae’, 106
- **buma* ‘k.o. fish, possibly sardine’, 40
- **buRu* ‘octopus ink, sepia’, 201
- **gina* ‘k.o. sea urchin with long spines’, 203
- **giRio(p)* ‘dolphin’, 245

- **jeqe* ‘grasshopper?’, *see* *(s,j)*eqe*
 **kaba-kaba* ‘to flap the wings’, 133
 **kaboRa* ‘*Plotosus*, catfish’, 42
 **kalis(i,u)* ‘k.o. skink’, 258
 **kalisu* ‘k.o. skink’, *see* **kalis(i,u)*
 **kaRuve* ‘k.o. beach crab, probably *Ocypoda* sp., ghost crab’, 176
 **k(o,u)vi* ‘Flycatcher, *Myiagra* sp.’, 345
 **kuvi* ‘Flycatcher, *Myiagra* sp.’, *see* **k(o,u)vi*
 **lako* (1) ‘cone or trochus shell’, (2) ‘various ornaments made from this’, 187
 **lapi* ‘wrasse’, 95
 **mata-buku* ‘*Turbo* spp.’, 183
 **m^wata* ‘snake, worm’, 413
 **nosa* ‘*Lethrinus* sp.’, *see* **n(u,o)sa*
 **n(u,o)sa* ‘*Lethrinus* sp.’, 83
 **(o,u)du* ‘*Leodis viridis*, palolo worm’, 212
 **ovi(s)*, **ovis-i-* (1) ‘brood, sit on eggs’; (2) ‘cover chicks with wings’, 280
 **paRapaRa* ‘flycatcher’, 345
 **pulewa* ‘k.o. eel’, 48
 **qanupe* ‘caterpillar’, 206, 405
 **qunap* ‘turtle shell, fish scales’, 268
 **Rami* ‘crustacean roe’, 180
 **Raŋa* ‘duck’, 294
 *(s,j)*eqe* ‘grasshopper?’, 397
 **tadruku* ‘generic for chitons’, 197
 **taliku* ‘Carangid’, 72
 **udu* ‘*Leodis viridis*, palolo worm’, *see* **(o,u)du*
 **vaRi manu* ‘*Aetobatis narinari*, eagle ray’, 35
 **vasua* ‘large shellfish, perhaps a bivalve’, *see* *(b,v)*asua*
 **waro(q)* ‘probably black-lipped pearl, *Pinctada maxima*, possibly generic for *Pinctada* spp.’, 194
 **wisi* ‘owl’, 333

Proto Eastern Oceanic (?)

- **kakaka* ‘small shore crab, possibly *Ocypoda* sp.’, 177

Proto SE Solomonic

- **b^wari* ‘large frog’, 265
 **ciŋi(l)o* ‘Yellow-faced Mynah, *Mino dumontii*’, 349
 **ciŋio* ‘Yellow-faced Mynah, *Mino dumontii*’, *see* **ciŋi(l)o*
 *[*ko*]*ko-miji* ‘k.o. spider’, 410
 **ko[l,R]o-kol,R]o* ‘beetle that attacks plants’, 402
 **kome* ‘armlets made from cone or trochus shell’, **ko-kome* or **kome-kome* ‘? generic for cone shells’, 187
 **koRo-koRo* ‘beetle that attacks plants’, *see* **ko[l,R]o-kol,R]o*
 **mama* ‘k.o. anemone or jellyfish’, 210
 **odu* ‘*Leodis viridis*, palolo worm’, 212
 **riuriu[kabe]* ‘Willie Wagtail, *Rhipidura leucophrys*’, 344
 **tava* ‘hawk or eagle’, 299
 **va(o,u)* ‘Fruit Dove, *Ptilinopus* sp.’, 315
 **vau* ‘Fruit Dove, *Ptilinopus* sp.’, *see* **va(o,u)*

Proto Malaita-Makira

- **fada* ‘sea eagle, *Haliaeetus*’, 299
 **kirori* ‘parrot sp.’, 326
 **sisira* ‘a barnacle or kind of small mollusc’, 179
 **sisiri* ‘swiftlet’, 335
 **wakio* ‘Osprey, *Pandion haliaetus*’, 300

Proto Remote Oceanic (PROc)

- **baku* ‘conger eel’, 46
 *(b,v)*asilo* ‘honeyeater’, 347
 **bonu* ‘k.o. eel, probably conger’, 45
 **b^wakaRe* ‘porcupine fish’, 128
 **b^war(o)-b^war(o)* ‘*Ostracion*, boxfish’, 124
 **dābea* ‘*Gymnothorax*, moray eel’, 45
 **druman(e,i)* ‘anemone’, 207
 **jeqevo(o,u)* ‘juvenile mullet’, 60
 **kVlili* ‘Wandering Tattler, *Heteroscelus incanus*’, 361

- *kaka ‘wader’, see *keke~*kaka
 *kalakala ‘swiftlet’, see
 *ka(r,l)aka(r,l)a
 *ka(r,l)aka(r,l)a ‘swiftlet’, 335
 *kaRapa ‘*Liza vaigiensis*,
 diamond-scaled mullet’, 60
 *keke~*kaka ‘wader’, 364
 *kemoa ‘booby’, 357
 *koro + modifier ‘petrel’, 352
 *lijo-lijo ‘night insect, probably a
 cricket’, 396
 *lubo ‘*Caranx* spp.’, 72
 *lulu ‘Barn Owl, *Tyto alba*’, 331
 *luRa ‘small shrimp’, 168
 *makini ‘to be stung’, 382
 *manini ‘*Acanthurus triostegus*,
 convict tang’, 107
 *maraya ‘sea eel’, 46
 *matu ‘*Gerres* spp., silver biddy’, 79
 *moto ‘k.o. fish’, 63
 *m^walau ‘squirrelfish, possibly
 generic for a number of spp.’, 55
 *pakit, *pakit-i- ‘search hair for lice’,
 377
 *pue ‘Booby, *Sula* sp.’, 355
 *r(a,e)nu(a,e) ‘*Kyphosus*, rudderfish’,
 87
 *renu(a,e) ‘*Kyphosus*, rudderfish’,
 see *r(a,e)nu(a,e)
 *soge ‘pigeon sp.’, 320
 *ta(i)ko(k) ‘petrel’, 352
 *tako(k) ‘petrel’, see *ta(i)ko(k)
 *takulasi or *takusali ‘sea snake’, 261
 *tawa-tawa ‘growth stage of skipjack
 or dogtooth tuna’, 113
 *tinebu ‘petrel’, 352
 *vasilo ‘honeyeater’, see *(b,v)asilo
Proto Southern Oceanic (PSOc)
 *bati ‘tusk, upper canine tooth’, 266
 *bukasi ‘pig (generic), and probably
 by default male pig, boar’, 239
 *gala ‘green lizard, *Emoia* sp.’, 257
 *Ivusi ‘cuckoo’, 329
 *mala ‘hawk’, 303
 *m^waRaki ‘Emerald Dove,
 Chalcophaps indica’, 316

- *sora ‘fantail’, 344
 *taroap(v) ‘White-throated Pigeon,
 Columba vitiensis’, 318
 *wase ‘Island Thrush, *Turdus*
 poliocephalus’, see *was(i,e)
 *was(i,e) ‘Island Thrush, *Turdus*
 poliocephalus’, 342
Proto North–Central Vanuatu (PNCV)
 *boe ‘pig, male pig’, 238
 *bue-bue ‘puffer fish’, 127
 *b^warab^wara ‘female pig’, 240
 *b^(w)ilake ‘Buff-banded Rail, *Rallus*
 philippensis’, 308
 *b^watu-(i)-manu ‘Cardinal
 Honeyeater, *Myzomela*
 cardinalis’ (lit. ‘head of bird’),
 348
 *guRio ‘dolphin (generic)’, 245
 *kanase ‘mullet’, 58
 *kato(q)u ‘hermit crab’, 171
 *laka ‘White-eye, *Zosterops* sp.’, 345
 *lavo ‘skipper, blenny’, 99
 *m^wa(toqu) ‘boxfish’, 124
 *novu ‘scorpion, venomous fish’, 120
 *qova ‘heron, probably *Egretta* sp.’,
 290
 *taroa ‘White-throated Pigeon,
 Columba vitiensis’, 318
 *tobaka ‘Fruit Dove, *Ptilinopus* sp.’,
 315
 *udu ‘Eunice, palolo worm’, 212
 *vete-vete ‘fantail’, 344
 *v^weru ‘Fruit Dove, *Ptilinopus* sp.’,
 315

Proto North Vanuatu

- *dilit(i,u) ‘*Caranx* spp.’, 73
 *rowou ‘bonito, *Thunnus* sp.’, 116
 *saum^wa ‘*Scarus* sp., parrotfish’, 98
 *tab^wale ‘grouper’, 67
 *tañitani ‘goatfish’, 86
 *toava ‘Mackinlay’s Cuckoo Dove,
 Macropygia mackinlayi’, 318
 *tutu ‘Baker’s Pigeon, *Ducula*
 bakeri’, 314

Proto Central Vanuatu

- **bai* ‘White-breasted Wood Swallow, *Artamus leucorhynchus*’, 349
- **bala* ‘Pacific Marsh Harrier, *Circus approximans*’, 303
- **b^waueve* ‘Mackinlay’s Cuckoo Dove, *Macropygia mackinlayi*’, 318

Proto South Melanesian

- **marup* ‘falcon’, 304
- **l(i)an* ‘duck’, 295

Proto South Vanuatu (PSV)

- **b^wan(ie)* ‘heron’, 291
- **manuy* ‘bird’, 272
- **sum^wit* ‘Barn Owl, *Tyto alba*’, 333
- **n-tako-tako(k)* ‘petrel’, 352

Proto New Caledonia (PNCal)

- **biŋ* ‘Buff-banded Rail, *Rallus philippensis*’, 309
- **bivilo(k)* ‘swiftlet’, 335
- **b^wakole* ‘hawk or kite’, 304
- **b^wamara* ‘fishing bird of prey’, 300
- **deŋ* ‘Pacific Marsh Harrier, *Circus approximans*’, 304
- **h^weeek* ‘New Caledonian Crow, *Corvus moneduloides*’, 351
- **kaidaa(n)* ‘frigate bird’, 359
- **kaka* ‘New Caledonian Crow, *Corvus moneduloides*’, 351
- **k^{hi}ñ* ‘White-breasted Wood Swallow, *Artamus leucorhynchus*’, 349
- **m^wen* ‘Barn Owl, *Tyto alba*’, 333
- **pit(a,i)ri* ‘rail’, 309
- **pitiri* ‘rail’, *see* **pit(a,i)ri*
- **tiā(k,ŋ)* ‘Melanesian Graybird, *Coracina caledonica*’, 341
- **tiāŋ* ‘Melanesian Graybird, *Coracina caledonica*’, *see* **tiā(k,ŋ)*
- **tila* ‘night heron, *Nycticorax* sp.’, 293

Proto Micronesia (PMic)

- **aroŋo* ‘Carangid fish, pompano, skipjack’, 105
- **atu* ‘bonito’, 112
- **fata* ‘platform, nest’, 279
- **iŋi* ‘dorsal fin’, 134
- **kalufa* ‘monitor lizard’, 254

- **kapilei* ‘cuckoo’, *see* *(*li*)*kapilei*
- **karakara* ‘tern’, 366
- **kiakia* ‘White Tern, *Gygis alba*’, 367
- **k(i,u)lili* ‘Wandering Tattler, *Heteroscelus incanus*’, 361
- **kua* ‘dolphin’, 246
- **kulu* ‘wader’, 363
- *(*li*)*kapilei* ‘cuckoo’, 330
- **manu* ‘living creature of land or air’, 272
- **maŋar* ‘flying fish’, 48
- **ŋāŋā* ‘sea bird, duck’, 294
- **p^woca* ‘turtle shell’, 268
- **tarā* ‘squirrelfish’, 18, 53
- **tarawa* ‘barracuda’, 64
- **tautu* ‘porcupine fish’, 125
- **tiku, tuki* ‘tropic-bird’, 353
- **toki* ‘bite, peck’, 281

Proto Central Micronesia

- **karau* ‘*Egretta sacra*’, 292

Proto Chuukic-Ponapeic

- **kul(i,u)ŋa* ‘plover’, 364

Proto Chuukic

- **karai* ‘heron’, 292
- **likāpi* ‘a bird’, 330

Proto Central Pacific

- **bābā* ‘*Fistularia*, flutefish’, 56
- **bakewa* ‘k.o. fish that accompanies sharks’, 31
- **baki* ‘k.o. jellyfish or hydroid’, *see* **bak(u)i*
- **bak(u)i* ‘k.o. jellyfish or hydroid’, 209
- **balani* ‘*Acanthurus* spp.’, 107
- **balolo* (1) ‘*Leodis viridis*, palolo worm’, (2) ‘name of the months when this worm rises’, 212
- *(*b,v*)*āsua* ‘giant clam, *Tridacna* spp.’, 190
- **batisai* ‘*Lutjanus monostigma*’, 78
- **beka-beka* ‘small insectivorous, cave-dwelling bat’, 237
- **bekabeka* ‘swiftlet’, 334
- **bobo* ‘*Scarus* sp.’, 98
- **bon(u,o)* ‘conger eel’, 45
- **bōsē* ‘*Scarus* sp.’, 98

- *bū 'Monotaxis grandoculis, large-eyed sea bream', see *(m,b)ū
 *bulewa 'an organism growing on rocks, possibly encrusting brown rock coral', 210
 *bulewa 'k.o. eel', 48
 *cumu 'Balistoidei, triggerfish', 121
 *dābea 'k.o. sea eel or sea snake', 45
 *donu 'adult *Plectropomus*', 66
 *dukuku 'Pomacentridae', 91
 *dralā 'red *Cephalopholis*', 67
 *g^wao-g^wao 'Ostracion', 124
 *i-kata 'growth term for *Caranx* sp.', 73
 *jabajaba 'Parribacus sp. (Scyllaridae), slipper lobster', 167
 *(jea)jea 'Spotted Triller, *Lalage maculosa*', 341
 *jeu 'carangid', 73
 *jexejexe 'Arothron', 127
 *jiva 'pearl oyster, including *Pinctada* spp.', 194
 *jove 'k.o. shellfish or barnacle', 179
 *kabatiko 'Lethrinus sp.', 83
 *kalewa 'Long-tailed Koel, *Urodynamis taitensis*', 329
 *kām(o,u)tu 'female *Scarus sordidus*', 96
 *kāmutu 'female *Scarus sordidus*', see *kām(o,u)tu
 *kanaðe 'Liza spp.', 58
 *kauki, *kawiki 'ghost crab, *Ocypoda* sp.', 176
 *kava 'Liza vaigiensis', 60
 *kava-kava 'juvenile *Liza vaigiensis*', 60
 *kawajo 'Lethrinus nebulosus', 83
 *kawekawesā 'Long-tailed Koel, *Urodynamis taitensis*', 330
 *kula 'Collared Lory, *Phigys solitarius*', 328
 *kuru 'Myripristis', 54
 *k^wak(a,e) 'Lutjanus monostigma', 78
 *labe 'Labridae, wrasse', 95
 *lakuya 'blenny', see *l(o,a)kuya
 *lalali, *ali 'flatfish', 118
 *laði 'Scomberoides sp.', 71
 *laulau-fau 'Zanclus canescens, Moorish idol', 101
 *laweja 'Alectis indicus, plumed trevally or mirrorfish', 73
 *l(o,a)kuya 'blenny', 99
 *loli 'sea cucumber taxon', 205
 *ma(c,s)i-ma(c,s)i 'Naso sp.', 107
 *manivi 'Pempheris sp.', 87
 *marari 'Novaculichthys, wrasse', see *m[e,a]rari
 *masa 'a small dark Acanthuridae, possibly *Zebrasoma scopas*, blue-lined tang or *A. pyroferus*, mimic surgeonfish', 107
 *masi-masi 'Naso sp.', see *ma(c,s)i-ma(c,s)i
 *mata qi taliŋa 'hammerhead shark', 33
 *matu 'Gerres', 79
 *matu-xurau 'Parupeneus sp.', 86
 *m[e,a]rari 'Novaculichthys, wrasse', 94
 *moa(moa) 'Ostracion', 124
 *moto-moto 'growth stage of *Sphyraena* sp.', 63
 *(m,b)ū 'Monotaxis grandoculis, large-eyed sea bream', 83
 *munua 'large *Epinephelus* sp.', 67
 *niva 'Sardinella spp.', 39
 *novu 'Synanceja verrucosa, stonefish', 120
 *ŋoŋo 'Common Noddy, *Anous stolidus*', 369
 *ŋujula 'Lethrinus elongatus', 83
 *ŋ^wajala 'Epinephelus spp.', 67
 *ŋ^wa(k,x)a 'Hemiramphus', 50
 *ŋ^waðaði 'Parupeneus sp.', 85
 *oje 'Mullidae', 86
 *ova 'nest', 280
 *qaso 'k.o. large shark', 33
 *qasuli 'k.o. sea eel', 47
 *qatu 'possibly generic for *Thunnus* and *Katsuwonus* spp.', 112

- *qatule 'Selar crumenophthalmus', 69
 *qaua 'juvenile mullet', 59
 *qavali 'Acanthurus sp.', 104
 *qawa 'Chanos', 41
 *qulavi 'Hipposcarus longiceps', 96
 *qutu 'Aprion virescens, grey jobfish', 75
 *r(a,e)nu(a,e) 'Kyphosus', 87
 *renu(a,e) 'Kyphosus, rudderfish', see *r(a,e)nu(a,e)
 *rō 'juvenile Siganus', 109
 *ru(b,v)e 'Pacific Pigeon, *Ducula pacifica*', 314
 *ruve 'Pacific Pigeon, *Ducula pacifica*', see *ru(b,v)e
 *(s,ð)abi 'Acanthurus guttatus, spotted surgeonfish', 104
 *sabutu 'Lutjanus and Lethrinus spp.', see *(ð,s)abutu
 *saku-laya 'swordfish, sailfish', 116
 *salala 'Rastrelliger', 115
 *sarā 'k.o. small schooling fish', 60
 *(ð,s)abutu 'Lutjanus and Lethrinus spp.', 76
 *ðabi 'Acanthurus guttatus, spotted surgeonfish', see *(s,ð)abi
 *ðaðā 'Spratelloides sp.', 38
 *ðuðu-walu 'k.o. sea cucumber, probably *Holothuria* sp.', 205
 *tā 'Naso sp.', 102
 *taniva 'Sardinella', 39
 *tanava 'Cheilinus undulatus', 93
 *tarasea 'sea cucumber taxon', 205
 *tasiwa 'Lutjanus sp.', 77
 *tautu 'Diodon sp.', 126
 *teu 'k.o. goatfish', 84
 *tivi-tivi 'Chaetodon spp.', 89
 *tuaði 'bivalve taxon, probably ark or cockle shell; possibly also grater or spoon made from this', see *tu(qu)aði
 *tuku-tuku 'k.o. spider which lowers itself on a single thread', 411
 *tuli(i) 'Pacific Golden Plover, *Pluvialis fulva*', 361
 *tuna 'Anguillidae, freshwater eel', 43
 *tu(qu)aði 'bivalve taxon, probably ark or cockle shell; possibly also grater or spoon made from this', 197
 *tusi 'Acanthurus sp.', 107
 *tuvu 'Labridae sp.', 94
 *uvi 'k.o. fish, poss. Eleotridae', 100
 *vāsua 'large shellfish, perhaps a bivalve', see *(b,v)āsua
 *vaya 'k.o. small school fish', 38
 *vilu 'Gnathanodon, Trachinotus', 70
 *vō 'k.o. small fish', see *vo(q)o
 *vokai 'k.o. lizard', 256
 *vo(q)o 'k.o. small fish', 100
 *voto 'thorn, prickle; spike or spines of a fish', 135
 *vua-vua 'k.o. small fish', 60
 *vula 'Megalops', 37
 *walu 'k.o. pelagic fish', 114
 *wana 'sea urchin, probably *Diadema* sp. and/or *Echinothrix* spp.', 204
 *weka 'Buff-banded Rail, *Rallus philippensis*', 309
- Proto Fijian (PFij)**
- *toa 'Ostracion', 124
 *via 'Zebrasoma veliferum', 103
- Proto Polynesian (PPn)**
- *aki-aki 'White Tern, *Gygis alba*', 367
 *ali 'Bothus spp., flounder', 118
 *ami 'crustacean roe', 180
 *aseu 'Caranx sp.', 73
 *fai 'stingray, general term', 35
 *fai-manu 'Aetobatis narinari, eagle ray', 36
 *faŋa-mea 'red *Lutjanus* spp., especially *L. bohar*, red bass or red snapper', 77
 *fāpuku 'Epinephelus sp., possibly *E. polyphekadion*, marbled sea bass', 67
 *fāsua 'large shellfish, perhaps a bivalve', see *(p,f)āsua
 *filu 'Carangidae', 70

- *foto 'barb of stingray', 126, 135
 *fua(kō) 'Booby, *Sula* sp.', 355
 *hafulu 'growth stage of goatfish', 86
 *haku 'garfish and needlefish', 51
 *hapi '*Acanthurus guttatus*', 104
 *(h)inaŋa 'whitebait', 100
 *huli 'fusilier sp.', 74
 *inaŋa 'whitebait', see *(h)inaŋa
 *ise 'halfbeak spp.', 49
 *kafa '*Liza vaigiensis*', 60
 *ka-lewe-lewe 'cobweb, spider', 409
 *kālisi 'cicada, cricket', 397
 *kalisi 'skink, k.o. lizard', 258
 *kaloama 'growth stage of goatfish', 86
 *kalukalu 'k.o. jellyfish', 210
 *kamutu '*Scarus* sp.', 96
 *kanahe '*Liza cephalus*, *Crenimugil crenilabis* and other mullet spp.', 58
 *kapa (v) 'beat, of wings, fins, flippers', 276
 *kapa-kapa (1) 'lateral fins', (2) 'flap wings', 133
 *kapa-kapa (N) 'fish fins'; (v) 'flap wings', 276
 *kapa-kau 'wing, fin', 276
 *kapoa 'fish sp., probably *Plotosus* sp., catfish', 42
 *kasi 'shellfish, *Asaphis* spp.', 191
 *kata 'growth term for *Caranx* sp.', 73
 *kawa-kawa '*Terapon jarbua*, crescent perch', 80
 *kawē 'tentacle of a cephalopod', 201
 *kawiki 'ghost crab, *Ocypoda* sp.', 176
 *kea 'hawksbill turtle', 251
 *kele-mutu 'earthworm, grub', 414
 *kina 'sea urchin', 203
 *kiokio '*Albula vulpes*, bonefish', 36
 *kito '*Epinephelus* spp.', 108
 *kiu~*kiwi 'shore bird taxon including *Pluvialis* and *Numenius*', 362
 *kiwi 'shore bird taxon including *Pluvialis* and *Numenius*', see *kiu~*kiwi
 *kolili 'Wandering Tattler, *Heteroscelus incanus*', 361
 *kōpū 'fish gullet', 134
 *kuka 'mangrove crab, *Sesarma* sp. or spp.', 175
 *kuku 'mussel sp. (Mytilidae)', 192
 *kula '(bright) red', 328
 *kulapo 'fish sp.', 81
 *kumā 'rat', 233
 *kuru '*Myripristis* sp.', 55
 *lafi 'wrasse or parrotfish spp.', see *la-lafi
 *(lafu)lafulafu 'wader sp.', 364
 *lai '*Scomberoides*', 71
 *la-lafi 'wrasse or parrotfish spp.', 95
 *lalī 'red rock cod spp.', 67
 *lofa 'petrel or other large sea bird', 353
 *loi '*Cephalopholis argus*, peacock rock cod', 67
 *lō-qata 'large ant', 392
 *lupo '*Caranx* spp.', 72
 *lupo-lupo 'juvenile *Caranx* spp.', 72
 *mala 'k.o. fish', 72
 *malau 'general term for a number of fishes of the genera *Holocentrus*, *Adioryx*, *Myripristis* and *Flammeo*, soldier fishes and squirrelfishes', 55
 *malau-taqa '*Adioryx* sp.', 55
 *mama 'chiton', 198
 *mamanu '*Scarus* spp.', 98
 *(m,p)anoko 'generic for gobies, mudskippers, blennies', 99
 *maŋō 'general term for shark spp.', 32
 *maqito '*Acanthuridae*, possibly *Ctenochaetus striatus*, lined bristletooth', 106
 *marari 'wrasse or parrotfish', see *m[e,a]rari
 *marawa 'rabbitfish, *S. rostratus*' [*S. argenteus*], 110
 *masi-masi '*Coryphaena hippurus*, dolphinfish', 73
 *mataele '*Serranidae*', 67

- *matu* 'Gerres spp., mojarras', 79
**matuku* 'Reef Heron, *Egretta sacra*', 292
**memea* 'Mulloides sp., goatfish', 86
**m[e,a]rari* 'wrasse or parrotfish', 94
**miti* 'Striped Starling, *Aplonis tabuensis*', 349
**mō* 'Sooty Crake, *Porzana tabuensis*', see **mo(s)o*
**moa* 'fowl', 286
**moa-moa* 'Ostraciidae, boxfish', 125
**moko* 'lizard', 261
**moja-moja* 'cockroach', 403
**mo(s)o* 'Sooty Crake, *Porzana tabuensis*', 309
**moto-moto* 'Sphyraena sp.', 63
**mū* 'flying insect', 416
**mutu[mutu]* 'Pomacentridae', 91
**nai-ufi* 'k.o. large shark, probably tiger or grey reef shark', 33
**nifa* 'Sardinella sp.', 39
**nofu* 'Synaceja verrucosa, Scorpaenidae spp.' [now Synanceiidae], 120
**ñū* 'squid', 200
**ñutuloa* 'Epibulis insidiator, slingjaw wrasse, or other long-nosed wrasse', 95
**oma* 'sponge', 213
**pakewa* 'Carangoides ferdau jordan', 31
**paki(paki)* 'Portuguese man o' war (bluebottle), Physalia sp.', 209
**palani* 'Acanthurus sp. of large size and elongate shape', 107
**palolo* (1) 'palolo worm', (2) 'name of the months when this rises', 212
**palu* 'oilfish; deep-sea snapper', 78
**panoko* 'generic for gobies, mudskippers, blennies', see **(m,p)anoko*
**papu* 'Cheilinus sp.', 94
**paqala* 'Acanthocybium solandri, wahoo', 116
**(p,f)āsua* 'Tridacna clam sp.', 190
**patuki* 'hawkfish', 91
**peka-peka* (1) 'small bat', (2) 'white-rumped swiftlet', 237
**pili* 'gecko; adhere to', 257
**pipi* 'probably general name for small or medium-sized circular bivalves, including cockles, Asaphis spp.', 191
**pone* 'Acanthurus sp. or Ctenochaetus striatus', 106
**puaka* 'pig', 239
**pule* 'cowrie', 186
**pulewa* 'marine substance/creature with stone-like or rough exterior', 210
**puja* 'coral rock', 209
**pusi* 'sea eel generic, Gymnothorax spp.', 44
**qalawa* 'k.o. shark', 32
**qalili* 'cat's eye shell, Turbo sp.', 182
**qalono* 'Acanthurus sp., probably A. lineatus, blue-lined surgeonfish', 105
**qaso* 'shark sp.', 33
**qatu* 'Katsuwonus pelamis, skipjack tuna', 112
**qatule* 'Selar crumenophthalmus, silver scad', 69
**qaua* 'mullet sp.', 59
**qawa* 'Chanos chanos, milkfish or salmon herring', 41
**qono* 'Sphyraena spp., barracuda', 61
**qufu* 'wrasse or parrotfish', 98
**qulafi* 'Scaridae spp.', 96
**qulua* 'Caranx sp., probably mature phase of C. ignobilis', 70
**qulu-tuki* 'hawkfish', 92
**qume* 'Naso sp., unicornfish', 101
**quna* 'fish scale, turtle shell', 131
**quṇa* 'generic for hermit crab', 170
**qūqū* 'coconut crab, Birgus latro', 169
**qura* 'crayfish', 166

- **qutu* 'Aprion virescens, grey jobfish', 75
 **ranue* 'Kyohosidae', 87
 **rō* 'Siganus sp.', 109
 **rumane* 'sea anenome', 207
 **s(a,ā)putu* 'Lutjanus and Lethrinus spp.', 76
 **sakulā* 'swordfish, sailfish', 116
 **sao-sao* 'juvenile Sphyræna sp.', 52
 **sarā* 'small schooling fish', 60
 **sasā* 'anchovy', 38
 **sāwaki* 'sea urchin with short spines', 203
 **sawane* 'Lutjanus kasmira', 78
 **seqe* 'insect spp. including mantis, stick insect, locust', 397
 **sipa* 'young flying fish', 50
 **sisi* 'a univalve mollusc', 185
 **soke* 'Carangid', see **soke(lau)*
 **soke(lau)* 'Carangid', 73
 **sumu* 'Balistidae', 121
 **sunale* 'Labridae', 95
 **tafaquli* 'Caranx sp., possibly C. lugubris', 73
 **taf(o,u)raqa* 'whale', 244
 **tahiwa* 'L. monostigma, one spot seaperch', 77
 **taiko* 'petrel', 353
 **taku(a,o)* 'large tuna or skipjack', 115
 **takuhali* 'black and white banded sea snake', 261
 **tala* 'tern', 368
 **talae* 'mudskipper', 99
 **tala-kisi* 'soldier or squirrelfish spp.', 55
 **tali-tali-quli* 'Echeneis sp., remora, and Naucrates ductor, pilot fish', 129
 **tanifa* 'fierce shark', 39
 **tanifa* 'tiger shark', 33
 **tañafa* 'Cheilinus sp.', 93
 **tañaqu* 'Lutjanus spp. including L. vaigiensis [L. fulvus] and probably other yellow or yellow-red species', 78
 **tao-tao* 'Fistularia spp., probably including trumpetfish', 52
 **tao-tao* 'Fistularia, flutefish', 56
 **tapatapa* 'Moreton Bay Bug', 167
 **tāpea* 'generic for morays', 45
 **taqa* 'Sargocentron spiniferum, armoured soldierfish', 18, 53
 **taqa-malau* 'Adioryx sp.', 55
 **tāqea* 'Lutjanus sp., probably L. gibbus', 77
 **taqe-tuli* 'phosphorescent centipede/millipede', 407
 **tautu* 'Diodon spp., porcupine fish', 126
 **tawake* 'White-tailed Tropic-bird, Phaethon lepturus', 354
 **tawa-tawa* 'Euthynnus yaito [E. affinis], black tuna, or Gymnosarda unicolor, juvenile, dogtooth tuna', 113
 **teqe-teqe* 'Arothron and Canthigaster spp., pufferfish', 127
 **teu* 'Carangid', 73
 **tifi-tifi* 'butterfly fish (generic)', 90
 **tio* 'oyster sp.', 193
 **tofe* 'k.o. bivalve', 179
 **toloa* 'duck', 295
 **tonu* 'rock cod, when large', 66
 **tū* 'ground dove', 317
 **tufu* 'Thalassoma sp.', 94
 **tukuku* 'Pomacentridae', 91
 **tuna* 'Anguilla spp., freshwater eel', 43
 **tupa* 'landcrab', 173
 **walu* 'Scombridae', 114
 **wana* 'sea urchin sp.', 204
 **wāwā* 'orthopterous insect', 397
 **weli* (1) 'centipede', (2) 'marine annelid like a centipede', 211
 **wete* 'k.o. goatfish, including Mulloidichthys', 85
- Proto Nuclear Polynesian (PNPn)**
- **kakasi* 'Thunnus albacares, yellowfin tuna', 116

- **kanapu* ‘Brown Booby, *Sula leucogaster*’, 356
- **katoko* ‘booby’, 357
- **kimoa* ‘rat, *R. exulans*’, 233
- **lakia* ‘White-capped Noddy, *Anous minutus*’, see *[*ta*]/*lapiti*
- **lapiti* ‘Black-naped Tern, *Sterna sumatrana*’, see *[*ta*]/*lapiti*
- **lele-fua* ‘k.o. moth’, see *[*pu*]/*lele-fua*
- **mako* ‘small bird sp.’, 351
- *(*maua*)*kena* ‘booby, *Sula* sp.’, 356
- **moaŋa* ‘*Parupeneus* spp.’, 86
- *[*pu*]/*lele-fua* ‘k.o. moth’, 380
- **takupu* ‘Red-footed Booby, *Sula sula*’, 356
- *[*ta*]/*lakia* ‘White-capped Noddy, *Anous minutus*’, 369
- *[*ta*]/*lapiti* ‘Black-naped Tern, *Sterna sumatrana*’, 369
- **tū*, **tū-kele* ‘ground dove’, 317

**Proto Eastern Polynesian–Northern
Outlier**

- **pāsua* ‘*Tridacna* sp. or spp.’, 190

Proto Central Eastern Polynesian

- **kautuku*~**kootuku* ‘heron sp.’, 292
- **tōrea* ‘Pacific Golden Plover, *Pluvialis fulva*’, 363

Proto Tahitic

- **mokolā* ‘duck’, 296

Alphabetical index of reconstructions

In alphabetising reconstructions, an upper-case character follows the corresponding lower-case character (thus *R* follows *r*), *y* follows *g*, *ñ* follows *n*, *η* follows *ñ*, *δ* follows *S*, the digraph *dr* follows *d*, a superscripted character is treated like the corresponding unsuperscripted character, and macrons, parentheses and brackets are ignored. Where alternants are shown in parentheses or brackets, e.g. (*r*; *R*) or [*q*, *k*], the second alternant is ignored, but is often shown in a crossreferenced entry at the appropriate alphabetic point. PSV reconstructions which consist of **n*(*V*)- ‘ARTICLE’ + ROOT are alphabetised by the root.

- **aki-aki*, PPn, ‘White Tern, *Gygis alba*’, 367
- **alali*, POc, ‘flatfish incl. flounders, soles’, see *[*l*]*alali*
- **alali*, PCEMP, ‘halibut, flounder’, 118
- **ali*, PPn, ‘*Bothus* spp., flounder’, 118
- **ami*, PPn, ‘crustacean roe’, 180
- **anay*, PMP, ‘termite’, 394
- **ane*, POc, ‘termite’, 394
- **aroŋo*, PMic, ‘Carangid fish, pompano, skipjack’, 105
- **aseu*, PPn, ‘*Caranx* sp.’, 73
- **atu*, PMic, ‘bonito’, 112
- **bābā*, PCP, ‘*Fistularia*, flutefish’, 56
- **baba(η)*, POc, ‘rock cod or grouper’, 65
- **babu*, POc, ‘*Cheilinus* spp., Maori wrasse’, 93
- **bai*, Proto Central Vanuatu, ‘White-breasted Wood Swallow, *Artamus leucorhynchus*’, 349
- **bakewa*, POc, ‘shark (generic)’, 29, 30, 129, 144, 148, 150
- **bakewa*, PCP, ‘k.o. fish that accompanies sharks’, 31
- **baki*, PCP, ‘k.o. jellyfish or hydroid’, see **bak(u)i*
- **bakopu*, PEOc, ‘k.o. fish, possibly *Eleotris* sp.’, 100
- **baku*, PROc, ‘conger eel’, 46
- **bak(u)i*, PCP, ‘k.o. jellyfish or hydroid’, 209
- **bala*, Proto Central Vanuatu, ‘Pacific Marsh Harrier, *Circus approximans*’, 303
- **balaki*, POc, ‘*Acanthurus* and *Naso* spp.’, see **bala(η,k)i*
- **bala(η,k)i*, POc, ‘*Acanthurus* and *Naso* spp.’, 107, 146, 148
- **balanji*, PCP, ‘*Acanthurus* spp.’, 107
- **balolo*, PCP, (1) ‘*Leodis viridis*, palolo worm’, (2) ‘name of the months when this worm rises’, 212
- **baluc*, POc, ‘pigeon, *Ducula* sp.’, 313
- **banic*, POc, ‘arm, hand, wing, fin (probably pectoral)’, 132, 275
- **baŋbaŋ*, PMP, ‘fish sp.’, 65
- **baraŋ~*rabaŋ*, PAdm, ‘tern’, 368
- **b(a,e,i)risu*, POc, ‘Buff-banded Rail, *Rallus philippensis*’, 308
- **baRuj*, PAn, ‘dove, *Ducula* sp.’, 313
- **(b,v)asilo*, PROc, ‘honeyeater’, 347
- **(b,v)asua*, PEOc, ‘large shellfish, perhaps a bivalve’, 190
- **(b,v)āsua*, PCP, ‘giant clam, *Tridacna* spp.’, 190

- *bati, POc, 'tusk, canine tooth', 266
 *bati, PSoc, 'tusk, upper canine tooth', 266
 *batisai, PCP, '*Lutjanus monostigma*', 78
 *bebek, POc, 'butterfly, moth', *see* *[kau]bebek
 *bebek, POc, 'generic for Chaetodontidae, coralfish and butterflyfish', 89, 145, 148
 *bebelo, PWoc, 'butterfly', 379
 *beka-beka, PCP, 'small insectivorous, cave-dwelling bat', 237
 *bekabeka, PCP, 'swiftlet', 334
 *bekur, PWMP, 'coo, turtle dove', 318
 *belama, Proto NW Solomonian, 'frigate bird', 359
 *belik(e,i)o, PEOc, 'pigeon sp.', 320
 *belikio, PEOc, 'pigeon sp.', *see* *belik(e,i)o
 *berisu, POc, 'Buff-banded Rail, *Rallus philippensis*', *see* *b(a,e,i)risu
 *beRek, PAn, 'domesticated pig', 238
 *bili, POc, 'k.o. lizard', 257
 *(b,v)ili[ki(k,t)i], Proto NW Solomonian, 'Beach Stone-Curlew, *Burhinus neglectus*', 364
 *bili[kiti], Proto NW Solomonian, 'Beach Stone-Curlew, *Burhinus neglectus*', *see* *(b,v)ili[ki(k,t)i]
 *bilu[bilu], PMP, '*Caranx* spp., trevally', 69
 *binam, POc, 'hornbill', 339
 *biŋ, PNCal, 'Buff-banded Rail, *Rallus philippensis*', 309
 *bio, PWoc, 'k.o. mollusc or pearl shell', 196
 *bi[r,R]apa, POc, '*Acanthurus lineatus*, blue-lined surgeonfish', 103
 *birisu, POc, 'Buff-banded Rail, *Rallus philippensis*', *see* *b(a,e,i)risu
 *biRa, POc, 'roe, fish eggs', 129
 *biRaq, PMP, '*Zebrasoma veliferum*', 103
 *biRaS, PAn, 'roe, fish eggs', 129
 *bivilo(k), PNCal, 'swiftlet', 335
 *bobo, PCP, '*Scarus* sp.', 98
 *bobo(ŋ), POc, 'butterfly', *see* *[kali]bobo(ŋ)
 *bo(dr;d)a, POc, 'turtle shell', 268
 *boe, PNCV, 'pig, male pig', 238
 *bogi, POc, 'large bird of prey sp., possibly sea eagle', 298
 *b(o,u)kas(i), POc, 'pig', 239
 *bolo, POc, 'small dark surgeonfish, possibly *Ctenochaetus*', 105
 *bona, PEOc, 'generic for various small Acanthuridae', *see* *bon(e,a)
 *bona, POc, 'pigeon, *Ducula* sp.', 313
 *bon(e,a), PEOc, 'generic for various small Acanthuridae', 106
 *bon(u,o), PCP, 'conger eel', 45
 *bonu, PROc, 'k.o. eel, probably conger', 45
 *boqe, PPT, 'heron, *Egretta* sp.', 290
 *boRok, POc, 'pig, *Sus scrofa*', 238
 *bōsē, PCP, '*Scarus* sp.', 98
 *bū, PCP, '*Monotaxis grandoculis*, large-eyed sea bream', *see* *(m,b)ū
 *bualabaw, PMP, 'rat, mouse', 232
 *bubu, POc, '*Balistes* taxon, triggerfish', 122, 147
 *bubu, POc, 'k.o. wasp', 389
 *bue-bue, PNCV, 'puffer fish', 127
 *bukas(i), POc, 'pig', *see* *b(o,u)kas(i)
 *bukasi, PSoc, 'pig (generic), and probably by default male pig, boar', 239
 *bukaw, PMP, 'owl sp.', 318
 *bukbuk, PMP, 'weevil that infests wood, bamboo, and rice; dust produced by the boring of this insect; tooth decay, dental caries', 388
 *bula, POc, 'k.o. sea cucumber', *see* *(p,b)ula
 *bulan-bulan, PMP, 'a white fish, *Megalops cyprinoides*', 37
 *bulati, PMP, 'roundworm, ascaris, intestinal worm; also earthworm?', 413
 *bulewa, PCP, 'an organism growing on rocks, possibly encrusting brown rock coral', 210

- **bulewa*, PCP, ‘k.o. eel’, 48
 **buli*, POc, ‘pufferfish’, 127
 **buliq*, PMP, ‘cowrie shell’, 185
 **buli(q)*, POc, ‘generic for cowries’, 185
 **bulu*, PMP, ‘body hair, fur, feather, down, floss’, 273
 **buma*, PEOc, ‘k.o. fish, possibly sardine’, 40
 **buna*, PMP, ‘batfish’, 88
 **bunaR*, POc, ‘batfish, *Platax* sp. or spp., possibly *Naso* sp. or spp.’, 88, 145, 148
 **bune*, POc, ‘pigeon, dove’, 310
 **buŋa*, PMP, ‘flower, blossom’, **buŋa ni batu* ‘coral sponge’, 208
 **buŋa*, POc, ‘smooth round coral’, 208
 **buqaya* + modifier, PMP, ‘*Hippocampus* sp., seahorse’, 56
 **buqaya*, PAn, ‘crocodile’, 252
 **buRi-buRi*, POc, ‘k.o. fish, possibly angelfish’, 90
 **buRu*, PEOc, ‘octopus ink, sepia’, 201
 **buRua*, POc, ‘*Murex* sp.’, 188
 **butir*, POc, ‘pigeon sp.’, 316
 **b^wakaRe*, PROc, ‘porcupine fish’, 128
 **b^walup*, POc, ‘k.o. eel, moray eel?’, 44
 **b^wa[p,w]a*, POc, ‘*Lutjanus* spp., snapper’, 76
 **b^wa[p,w]a*, POc, ‘snapper, *Lutjanus* spp.’, 146, 148
 **b^warab^wara*, PNCV, ‘female pig’, 240
 **b^wara-wa(r;d,dr;R)a(q)*, POc, ‘*Sphyræna* sp., possibly *S. jello*, the slender or pickhandle sea pike’, 63
 **b^wari*, Proto SE Solomonic, ‘large frog’, 265
 **b^war(o)-*b^war(o)*, PROc, ‘*Ostracion*, boxfish’, 124
 **b^waReu*, POc, ‘*Ostracion*, boxfish’, 124
 **[b^waRu]b^waRu*, POc, ‘*Balistes* taxon, triggerfish’, 122, 123
 **b^wasa*, POc, ‘pig, possibly sow’, 239
 **b^wa(s,j)i*, POc, ‘moray eel’, 146, 148, see **[la]b^wa(s,j)i*
 **b^wawa*, POc, ‘snapper, *Lutjanus* spp.’, see **b^wa[p,w]a*
 **b^weka*, POc, ‘flying fox, large fruit bat’, 235
 **b^(w)ilake*, PNCV, ‘Buff-banded Rail, *Rallus philippensis*’, 308
 **b^woe-b^woe*, POc, ‘pufferfish’, 127
 **b^wos*, POc, ‘*Scarus* sp., k.o. parrotfish’, 98
 **b^wakole*, PNCal, ‘hawk or kite’, 304
 **b^walaRe*, POc, ‘Purple Swamphen, *Porphyrio porphyrio*’, 307, 308
 **b^wamara*, PNCal, ‘fishing bird of prey’, 300
 **b^wan(ie)*, PSV, ‘heron’, 291
 **b^waŋ*, POc, ‘sea eagle’, 298
 **b^waro*, POc, ‘heron, probably *Egretta* sp.’, 291
 **b^waruruk*, POc, ‘pigeon or dove sp.’, 320
 **b^watu-(i)-manu*, PNCV, ‘Cardinal Honeyeater, *Myzomela cardinalis*’ (lit. ‘head of bird’), 348
 **b^waueve*, Proto Central Vanuatu, ‘Mackinlay’s Cuckoo Dove, *Macropygia mackinlayi*’, 318
 **b^wauro*, POc, ‘tern’, 367
 **b^wayob^wayo*, PPT, ‘crow’, 351
 **b^wiru*, POc, ‘Purple Swamphen, *Porphyrio porphyrio*’, 308
 **b^wisu*, POc, ‘Shining Starling, *Aplonis metallica*’, 348
 **ciŋi(l)o*, Proto SE Solomonic, ‘Yellow-faced Mynah, *Mino dumontii*’, 349
 **ciŋio*, Proto SE Solomonic, ‘Yellow-faced Mynah, *Mino dumontii*’, see **ciŋi(l)o*
 **cumu*, PCP, ‘Balistoidei, triggerfish’, 121
 **Ciqaw*, PAn, ‘goatfish’, 84
 **dābea*, PCP, ‘k.o. sea eel or sea snake’, 45
 **dābea*, PROc, ‘*Gymnothorax*, moray eel’, 45
 **daula*, POc, ‘frigate bird’, see **(dr,d)aula*
 **deŋ*, PNCal, ‘Pacific Marsh Harrier, *Circus approximans*’, 304

- **didi*, PWOC, 'small ant', 393
 **dilit(i,u)*, Proto North Vanuatu, '*Caranx* spp.', 73
 **dim^wan*, PNGOC, 'k.o. worm', 414
 **doloq*, POC, 'k.o. eel', *see* *(*t,d*)*oloq*
 **don(o,u)*, POC, 'spotted rock cod, taxon including *Cephalopholis* and *Plectropomus* spp.', 66, 146, 148
 **donu*, POC, 'spotted rock cod, taxon including *Cephalopholis* and *Plectropomus* spp.', *see* **don(o,u)*
 **donu*, PCP, 'adult *Plectropomus*', 66
 **dukuku*, PCP, 'Pomacentridae', 91
 **duyuy*, PMP, 'dugong', 247
 **drālā*, PCP, 'red *Cephalopholis*', 67
 *(*dr;d*)*aula*, POC, 'frigate bird', 357
 *[*driu*]*driu*, POC, 'small red or brown ants', 392
 **droman*, POC, 'leech', 207, 412
 **drudru(r,R)*, POC, 'owl', 331
 **druī*, POC, 'ant', 392
 **druman(e,i)*, PROc, 'anemone', 207
 **fada*, Proto Malaita-Makira, 'sea eagle, *Haliaeetus*', 299
 **fai*, PPn, 'stingray, general term', 35
 **fai-manu*, PPn, '*Aetobatis narinari*, eagle ray', 36
 **faŋa-mea*, PPn, 'red *Lutjanus* spp., especially *L. bohar*, red bass or red snapper', 77
 **fāpuku*, PPn, '*Epinephelus* sp., possibly *E. polyphekadion*, marbled sea bass', 67
 **fāsua*, PPn, 'large shellfish, perhaps a bivalve', *see* *(*p,f*) *āsua*
 **fata*, PMic, 'platform, nest', 279
 **filu*, PPn, 'Carangidae', 70
 **foto*, PPn, 'barb of stingray', 126, 135
 **fua(kō)*, PPn, 'Booby, *Sula* sp.', 355
 **gaga*, POC, 'k.o. spider', *see* **gagao* ~ *(*g,k*)*a(g,k)a-*
 **gagao* ~ *(*g,k*)*a(g,k)a-*, POC, 'k.o. spider', 409
 **gala*, PSOC, 'green lizard, *Emoia* sp.', 257
 *(*g,k*)*alau*, POC, 'k.o. shore crab, possibly a grapsid sp.', 177
 **game*, PMM, 'k.o. mollusc', 196
 **gara*, POC, 'gills', 130
 **g(a)umu*, POC, 'Fruit Dove, *Ptilinopus* sp.', 315
 **gavun*, PNNG, 'dog', 241
 **gaway*, PMP, 'octopus tentacles', 201
 **gina*, PEOc, 'k.o. sea urchin with long spines', 203
 **giRio(p)*, PEOc, 'dolphin', 245
 **golo*, POC, 'tern', 367
 **guma*, POC, 'monitor lizard', *see* *(*k,g*)*uma*
 **guma-kara*, PPT, 'monitor lizard', *see* *(*k,g*)*uma-kara*
 **gumu*, POC, 'Fruit Dove, *Ptilinopus* sp.', *see* **g(a)umu*
 **gumu*, PWOC, 'k.o. wasp', 390
 **gupuR*, POC, 'pigeon or dove', *see* *(*k,g*)*upuR*
 **guRio*, PNCV, 'dolphin (generic)', 245
 **g^wao-g^wao*, PCP, '*Ostracion*', 124
 **hafulu*, PPn, 'growth stage of goatfish', 86
 **haku*, PPn, 'garfish and needlefish', 51
 **hapi*, PPn, '*Acanthurus guttatus*', 104
 **hasan*, PMP, 'gills', 129
 **hikan*, PMP, 'fish', 28
 *(*h*)*inaŋa*, PPn, 'whitebait', 100
 **huli*, PPn, 'fusilier sp.', 74
 **h^weeek*, PNCal, 'New Caledonian Crow, *Corvus moneduloides*', 351
 **ibo*, POC, 'k.o. sandworm, probably *Sipunculus* sp.', 210
 **ikan*, POC, 'fish (generic)', 28, 144, 148, 150
 **ikan*, POC, 'generic for fish (and certain other free-swimming aquatic creatures)', 421, 428, 452
 **i-kata*, PCP, 'growth term for *Caranx* sp.', 73
 **ikuR*, PAn, 'tail', 267, 277
 **iku(R)*, POC, 'tail, of quadruped, some birds and possibly fish', 267, 277
 **inaŋa*, PPn, 'whitebait', *see* *(*h*)*inaŋa*

- **iji*, PMic, ‘dorsal fin’, 134
 **ioli*, POc, ‘honeyeater’, 347
 **ipos*, POc, ‘cockroach’, 402
 **ipu*, POc, ‘hair, feather’, 274
 **ise*, PPn, ‘halfbeak spp.’, 49
 **jabajaba*, PCP, ‘*Parribacus* sp. (Scyllaridae), slipper lobster’, 167
 **jabin*, POc, ‘*Acanthurus* spp., incl. *A. guttatus*, white-spotted surgeonfish’, see *[s,j]abin
 **jaja*, POc, ‘small fish, herring or anchovy’, 38
 **jalala*, POc, ‘*Rastrelliger*, k.o. small mackerel’, 115
 **japi*, POc, (1) ‘bivalve taxon, probably *P. maxima*, gold-lipped pearl shell’, (2) ‘ornament made from this’, 193
 *(*jea*)*jea*, PCP, ‘Spotted Triller, *Lalage maculosa*’, 341
 **jeqe*, PEOc, ‘grasshopper?’, see *(s,j)eqe
 **jeqevo(o,u)*, PROc, ‘juvenile mullet’, 60
 **jeu*, PCP, ‘carangid’, 73
 **jexejexe*, PCP, ‘*Arothron*’, 127
 **jiko*, POc, ‘kingfisher’, see *(s,j)iko
 **jiyana*, POc, ‘whitebait’, 100
 **jipiu*, POc, ‘wader’, 359
 **jiva*, PCP, ‘pearl oyster, including *Pinctada* spp.’, 194
 **joŋa*, PNGOc, ‘(boar’s) tusk’, 267
 **jori*, POc, ‘squirrelfish, possibly generic’, 55
 **jove*, PCP, ‘k.o. shellfish or barnacle’, 179
 **jumu*, POc, ‘Balistidae, triggerfish and possibly Monacanthidae, leatherjackets’, 121, 145, 148
 **kVlili*, PROc, ‘Wandering Tattler, *Heteroscelus incanus*’, 361
 **kaba*, POc, (N) ‘wing’, (v) ‘flap wings’, 275
 **kaba-kaba*, PEOc, ‘to flap the wings’, 133
 **kabakabal*, POc, ‘swiftlet, *Aerodramus* or *Collocalia* spp.’, 334
 **kabatiko*, PCP, ‘*Lethrinus* sp.’, 83
 **kabilak^{wa}*, PWOc, ‘k.o. spider’, see *ka(p,b)ilak^{wa}
 **kaboRa*, PEOc, ‘*Plotosus*, catfish’, 42
 **kaboRa*, POc, ‘*Plotosus* spp., catfish’, 42
 **kaboRa*, POc, ‘catfish-eel, *Plotosus* sp.’, 147, 148
 **kadik*, POc, ‘stinging black ant’, 390
 **kafa*, PPn, ‘*Liza vaigiensis*’, 60
 **k(a)iau*, POc, ‘Bismarck Scrub Fowl, *Megapodius eremita*’, 306
 **kaidaa(n)*, PNCal, ‘frigate bird’, 359
 **kaka*, PNCal, ‘New Caledonian Crow, *Corvus moneduloides*’, 351
 **kaka*, POc, ‘k.o. spider’, see *gagao ~ *(g,k)a(g,k)a-
 **kaka*, PROc, ‘wader’, see *keke~*kaka
 **kakaka*, PEOc (?), ‘small shore crab, possibly *Ocypoda* sp’, 177
 **kakasi*, PNPn, ‘*Thunnus albacares*, yellowfin tuna’, 116
 **kakata*, Proto NW Solomonian, ‘sea eagle, *Haliaeetus*’, see *katata~*kakata
 **kakawa*, POc, ‘goby, blenny’, 99
 **kakawe*, PPT, ‘Sulphur-crested Cockatoo, *Cacatua galerita*’, see *wakeke~*kakawe
 **kalabaw*, PEMP, ‘rat, mouse’, 233
 **kalakala*, PROc, ‘swiftlet’, see *ka(r,l)aka(r,l)a
 **ka(l,R)ana(r,R)*, PWOc, ‘male Eclectus Parrot, *Eclectus roratus*’, 322
 **kalapo*, POc, ‘rat taxon’, 233
 **kalewa*, PCP, ‘Long-tailed Koel, *Urodynamis taitensis*’, 329
 **ka-lewe-lewe*, PPn, ‘cobweb, spider’, 409
 *[*kali*]bobo(ŋ), POc, ‘butterfly’, 378
 **kalika*, POc, ‘Epinephelidae, rock cod’, 67
 *(*kali*)papa, PMP, ‘praying mantis, grasshopper’, 398

- **kalipa(s)*, POc, 'large monitor lizard, *Varanus indicus* and possibly other species', *see*
**ka(r,l)(i,u)pa(s)*
- **kalis(i,u)*, PEOc, 'k.o. skink', 258
- **kālisi*, PPn, 'cicada, cricket', 397
- **kalisi*, PPn, 'skink, k.o. lizard', 258
- **kalisu*, PEOc, 'k.o. skink', *see* **kalis(i,u)*
- **(k,q)ali-totop*, POc, 'firefly', 399
- **kalo*, POc, 'growth stage of goatfish', 86
- **kaloama*, PPn, 'growth stage of goatfish', 86
- **kalufa*, PMic, 'monitor lizard', 254
- **kalukalu*, PPn, 'k.o. jellyfish', 210
- **kalupa(s)*, POc, 'large monitor lizard, *Varanus indicus* and possibly other species', *see*
**ka(r,l)(i,u)pa(s)*
- **kamak*, POc, 'beetle, possibly longicorn', 401
- **kamaRi*, POc, '*Elagatis bipinnulata*, rainbow runner', 72
- **kam(a,i,u)tuq*, POc, '*Bolbometopon*, double-headed parrotfish', 96
- **kamituq*, POc, '*Bolbometopon*, double-headed parrotfish', *see*
**kam(a,i,u)tuq*
- **kām(o,u)tu*, PCP, 'female *Scarus sordidus*', 96
- **kamutu*, PPn, '*Scarus* sp.', 96
- **kāmutu*, PCP, 'female *Scarus sordidus*', *see* **kām(o,u)tu*
- **kamutuq*, POc, '*Bolbometopon*, double-headed parrotfish', *see*
**kam(a,i,u)tuq*
- **kam^waga*, PWOC, 'eagle, hawk', 302
- **kanahe*, PPn, '*Liza cephalus*, *Crenimugil crenilabis* and other mullet spp.', 58
- **kanapu*, PNPn, 'Brown Booby, *Sula leucogaster*', 356
- **kanasay*, PMP, 'mullet', 58
- **kanase*, PNCV, 'mullet', 58
- **kanase*, POc, 'mullet spp. including *Valamugil cunnesius*', 58, 145, 148
- **kanaðe*, PCP, '*Liza* spp.', 58
- **kanaway*, PMP, 'white bird', 365
- **kanawe*, POc, 'tern, *Sterna* spp.', 365
- **kandoRa*, PCEMP, 'cuscus', 220, 225
- **kanzupay*, PCEMP, 'rat', 231
- **kao(i)*, POc, 'heron, probably *Egretta* sp.', 289
- **(kao)kao*, POc, 'crow, *Corvus* sp.', 350
- **kaopa*, POc, 'heron, probably *Egretta* sp.', 289
- **kapā*, PPn, (v) 'beat, of wings, fins, flippers', 276
- **kapak*, PMP, 'wings; flutter', 275
- **kapā-kapā*, PPn, (N) 'fish fins'; (v) 'flap wings', 133, 276
- **kapā-kau*, PPn, 'wing, fin', 276
- **kapay*, PMP, 'flap wings', 276
- **kape*, POc, 'crab taxon, probably a rock crab (*Grapsidae*)', 175
- **kapi-kapi*, PMP, 'fin', 133
- **kapi-kapi*, POc, 'pectoral fins', 133
- **ka(p,b)ilak^wa*, PWOC, 'k.o. spider', 411
- **kapilei*, PMic, 'cuckoo', *see* *(*li*)*kapilei*
- **kapoa*, PPn, 'fish sp., probably *Plotosus* sp., catfish', 42
- **kapoRu*, POc, 'k.o. lizard', 259
- **kapuna*, PWOC, 'dog', 241
- **karai*, PPT, 'white cockatoo', 321
- **karakara*, PMic, 'tern', 366
- **ka(r,l)aka(r,l)a*, PROc, 'swiftlet', 335
- **karau*, Proto Central Micronesian, '*Egretta sacra*', 292
- **karawa*, POc, 'green parrotfish spp.', *see*
**[m,k]arawa*
- **karai*, Proto Chuukic, , 292
- **(ka)reñas*, POc, 'small parrot sp.', 326
- **ka(r,l)(i,u)pa(s)*, POc, 'large monitor lizard, *Varanus indicus* and possibly other species', 254
- **karipa(s)*, POc, 'large monitor lizard, *Varanus indicus* and possibly other species', *see*
**ka(r,l)(i,u)pa(s)*
- **karok*, PNNG, 'frog', 264
- **ka(r,R)ok(V)*, PNGOC, 'crow', 350

- **karupa(s)*, POc, ‘large monitor lizard, *Varanus indicus* and possibly other species’, see
**ka(r,l)(i,u)pa(s)*
- **kaRa*, POc, ‘male Eclectus Parrot, *Eclectus roratus*’, 322
- **kaRaka*, POc, ‘k.o. crab, possibly rock crab.’, 177
- **kaRakap*, PMP, ‘probably rock crab’, 177
- **kaRaŋa(r;R)*, PWOC, ‘male Eclectus Parrot, *Eclectus roratus*’, see
**ka(l,R)ŋa(r;R)*
- **kaRapa*, POc, ‘k.o. fish’, 59
- **kaRapa*, PROc, ‘*Liza vaigiensis*, diamond-scaled mullet’, 60
- **kaRi*, POc, ‘bivalve sp. or spp, possibly cockle, used as a scraper’, 191
- **ka(R,r)oma*, PWOC, ‘nit’, 376
- **(k,q)aRua(s)*, POc, ‘mullet (generic)’, 59, 147, 148
- **kaRuki*, PMP, ‘sand crab, *Ocypoda* sp.’, 176
- **kaRuki*, (dbl. **kaRuiki*), POc, ‘ghost crab, *Ocypoda* sp., small white crab found on sandy beaches’, 176
- **kaRuve*, PEOc, ‘k.o. beach crab, probably *Ocypoda* sp., ghost crab’, 176
- **kasawari*, PCEMP, ‘cassowary’, 288
- **kasi*, POc, (v) ‘to scrape; scraper or grater made from robust circular bivalve shell, such as *Asaphis* and cockles’, (N) ‘shellfish taxon, esp. *Asaphis* spp.’, 191
- **kasi*, PPn, ‘shellfish, *Asaphis* spp.’, 191
- **kasi*, Proto North Bougainville, ‘dog’, 241
- **kasika*, POc, ‘large emperor, *Lethrinus* sp.’, 81, 146, 148
- **kasuari*, POc, ‘Dwarf Cassowary, *Casuarius bennetti*’, 288
- **kasuli*, PMP, ‘Anguillidae, freshwater eel’, 47
- **(k,q)asuli*, POc, ‘k.o. sea eel’, 47
- **kasupe*, **kusupe*, POc, ‘rat taxon, probably *Rattus exulans* and possibly other small commensal sp. or spp.’, 231
- **kata*, PPn, ‘growth term for *Caranx* sp’, 73
- **katapa*, POc, ‘frigate bird’, 358
- **katata*~**kakata*, Proto NW Solomonic, ‘sea eagle, *Haliaeetus*’, 299
- **katawan*, PMP, ‘fish sp.’, 103
- **katawan*, POc, ‘*Acanthurus*, surgeonfish’, 103
- **katoko*, PNPn, ‘booby’, 357
- **kato(q)u*, PNCV, ‘hermit crab’, 171
- **kato(q)u*, POc, ‘hermit crab’, 171
- **ka(u,w)ak*, PWOC, ‘dog’, 242
- **[kau]bebek*, POc, ‘butterfly, moth’, 378
- **kauki*, **kawiki*, PCP, ‘ghost crab, *Ocypoda* sp.’, 176
- **kautuku*~**kootuku*, Proto Central Eastern Polynesian, ‘heron sp.’, 292
- **kava*, PCP, ‘*Liza vaigiensis*’, 60
- **kava-kava*, PCP, ‘juvenile *Liza vaigiensis*’, 60
- **kawa-kawa*, POc, ‘rock cod, grouper’, 66, 80
- **kawa-kawa*, PPn, ‘*Terapon jarbua*, crescent perch’, 80
- **kawaŋo*, POc, ‘k.o. fish, probably *Lethrinus* sp.’, 83
- **kawaŋo*, PCP, ‘*Lethrinus nebulosus*’, 83
- **kawe*, POc, ‘tentacle of a cephalopod’, 201
- **kawe*, PPn, ‘tentacle of a cephalopod’, 201
- **kawekawesā*, PCP, ‘Long-tailed Koel, *Urodynamis taitensis*’, 330
- **kawiki*, PPn, ‘ghost crab, *Ocypoda* sp.’, 176
- **kea*, PPn, ‘hawksbill turtle’, 251
- **keke*~**kaka*, PROc, ‘wader’, 364
- **kele-mutu*, PPn, ‘earthworm, grub’, 414
- **kemoa*, PROc, ‘booby’, 357
- **kempuŋ*, PMP, ‘abdomen, belly’, 134

- **kepV*, POc, ‘*Lutjanus* spp., sea perch’,
see **k(i,e)pV*
- **kepay-kepay*, PWMP, ‘flap (wings, fins
of fish, etc.)’, 276
- **kepek*, PWMP, ‘flap wings’, 276
- **kep^wa*, POc, ‘Clupeidae, probably
sardine sp.’, 40
- **ker(a,e)(ker(a,e))*, POc, ‘tern’, 366
- **kere(kere)*, POc, ‘tern’, see
**ker(a,e)(ker(a,e))*
- **keRaŋ*, POc, ‘hawksbill turtle,
Eretmochelys imbricata’, 250,
323
- **keRaŋ*, PCEMP, ‘hawksbill turtle’, 250
- **keRteŋ*, PMP, ‘kind of striped or spotted
marine fish, *Epinephelus* sp.’, 65
- **k^hiñ*, PNCal, ‘White-breasted Wood
Swallow, *Artamus
leucorhynchus*’, 349
- **kiakia*, PMic, ‘White Tern, *Gygis alba*’,
367
- **kiau*, POc, ‘Bismarck Scrub Fowl,
Megapodius eremita’, see
**k(a)iau*
- **kiki*, POc, ‘kingfisher’, 338
- **ki(kio)*, POc, ‘kingfisher’, see **ki(o)kio*
- **kikiora*, POc (?), ‘Dollar Bird,
Eurystomus orientalis’, see
kikiroa*~kikiora*
- **kikiroa*~**kikiora*, POc (?), ‘Dollar Bird,
Eurystomus orientalis’, 339
- **k(i,u)lili*, PMic, ‘Wandering Tattler,
Heteroscelus incanus’, 361
- **kima*, PMP, ‘giant clam, *Tridacna* spp.’,
189
- **kima*, POc, ‘giant clam, *Tridacna* spp.,
include. *T. gigas*’, 189
- **kimoa*, PNPn, ‘rat, *R. exulans*’, 233
- **kina*, PPn, ‘sea urchin’, 203
- **kini-t*, POc, ‘to pinch’, 382
- **ki(o)kio*, POc, ‘kingfisher’, 338
- **kiokio*, PPn, ‘*Albula vulpes*, bonefish’,
36
- **k(i,e)pV*, POc, ‘*Lutjanus* spp., sea perch’,
78
- **kipa*, PWOC, ‘hawk’, 302
- **kirau*, POc, ‘*Scarus* spp.’, see **kir[i,au]*
- **ki(r,R)i-ki(r,R)i*, PWOC, ‘sandfly’, 385
- **kir[i,au]*, POc, ‘Acanthuridae’, 105
- **kirori*, Proto Malaita-Makira, ‘parrot
sp.’, 326
- **kiRa*, POc, ‘White Tern, *Gygis alba*’, 366
- **kiRak*, POc, ‘parrot sp.’, 323
- **kisakisa*, PNGOC, ‘hawk or eagle’, 301
- **kiso*, POc, ‘Crested Baza, *Aviceda
subcristata*’, see **ki(t,s)o*
- **kitave*, PPT, ‘hawk’, 302
- **kiteŋ*, PMP, ‘rabbitfish’, 108
- **ki(t,s)o*, POc, ‘Crested Baza, *Aviceda
subcristata*’, 300
- **kito*, PPn, ‘*Epinephelus* spp.’, 108
- **kiton*, POc, ‘*Siganus* sp., possibly
‘*Siganus punctatus*, gold-spotted
spinefoot’, 108
- **kiu*~**kiwi*, PPn, ‘shore bird taxon
including *Pluvialis* and
Numenius’, 362
- **kiwi*, PPn, ‘shore bird taxon including
Pluvialis and *Numenius*’, see
kiu*~kiwi*
- **kiwiwi*, PWOC, ‘sandpiper sp.’, 360, 363
- **koba*, POc, ‘hermit crab’, 171
- **kobu(ŋ)*, POc, ‘middle, waist, belly’, 134
- **koko*, POc, ‘spider’, 410
- **[ko]ko-miji*, Proto SE Solomonian, ‘k.o.
spider’, 410
- **kokorako*, POc, ‘fowl, *Gallus gallus*,
esp. male’, 284
- **kolili*, PPn, ‘Wandering Tattler,
Heteroscelus incanus’, 361
- **ko[l,R]o-kol,R]o*, Proto SE Solomonian,
‘beetle that attacks plants’, 402
- **kome*, Proto SE Solomonian, ‘armlets
made from cone or trochus shell’,
**ko-kome* or **kome-kome* ‘?’
generic for cone shells’, 187
- **komo*, PWOC, ‘hornbill’, 340
- **koŋo(k)*, POc, ‘hornbill’, 340
- **kōpū*, PPn, ‘fish gullet’, 134
- **koran*, POc, ‘emperor, Lethrinidae’, 83
- **koro* + modifier, PROc, ‘petrel’, 352
- **koro*, POc, ‘gills’, 130

- **kororo*, POc, ‘bee’, 387
 **koRo-koRo*, Proto SE Solomonic, ‘beetle that attacks plants’, *see* **ko[l,R]o-kol,R]o*
 **kosa*, POc, ‘k.o. parrotfish’, 97
 **koto(η)*, POc, ‘large rock cod or grouper, *Epinephelus* sp.’, 65, 146, 148
 **kotu*, PWOC, ‘rat’, 234
 **k(o,u)vi*, PEOc, ‘Flycatcher, *Myiagra* sp.’, 345
 **kua*, PMic, ‘dolphin’, 246
 **kuba*, POc, ‘pigeon, probably *Ducula* sp.’, *see* **ku(i)ba*
 **kuCu*, PAn, ‘louse’, 374
 **ku(i)ba*, POc, ‘pigeon, probably *Ducula* sp.’, 311
 **kuka*, POc, ‘mudcrab, including *Sesarma* sp. or spp., living in mangrove forest and mudflats’, 174
 **kuka*, PPn, ‘mangrove crab, *Sesarma* sp. or spp.’, 175
 **kuk(o,u)*, POc, ‘k.o. lizard’, 258
 **kuku*, POc, ‘k.o. lizard’, *see* **kuk(o,u)*
 **kuku*, POc, ‘nail (of hand or foot), claw’, 278
 **kuku*, PPn, ‘mussel sp. (*Mytilidae*)’, 192
 **kuku*, PWOC, ‘spider’, 411
 **kuku(r)*, POc, ‘mussel sp. or spp., used as food grater or scraper’, 192
 **kula*, PPn, ‘(bright) red’, 328
 **kula*, PCP, ‘Collared Lory, *Phigys solitarius*’, 328
 **kulabaw*, PAn, ‘rat, mouse’, 233
 **kulabo*, POc, ‘*Lethrinidae*’, 81
 **kulabo*, POc, ‘snapper sp. or spp.’, 145, 148
 **kulambar*, PMP, ‘*Gnathodentex*, *Scolopsis*’, 81
 **[(k,q)]ulapi*, PMP, ‘parrotfish’, 95
 **(k,q)ulapi*, POc, ‘parrotfish spp., incl. *Hipposcarus longiceps*, long-nosed parrotfish’, 81, 95
 **(k,q)ulapi*, POc, ‘parrotfish spp., incl. *Hipposcarus longiceps*, longnosed parrotfish’, 146, 148
 **kulapo*, PPn, ‘fish sp.’, 81
 **ku(l,i,u)ŋa*, Proto Chuukic-Ponapeic, ‘plover’, 364
 **kulu*, PMic, ‘wader’, 363
 **(kulu)kulu*, POc, ‘pigeon sp.’, *see* **(ku(r,l)u)ku(r,l)u*
 **(k,g)uma*, POc, ‘monitor lizard’, 254
 **kumā*, PPn, ‘rat’, 233
 **(k,g)uma-kara*, PPT, ‘monitor lizard’, 254
 **(k,q)umutuR*, POc, ‘*Plectorhinchus* spp., sweetlips’, 80, 146, 148
 **kuni*, PWOC, ‘? frog, tadpole’, 265
 **(k,g)upuR*, POc, ‘pigeon or dove’, 316
 **kurau*, POc, ‘pigeon sp.’, 319
 **kuriap*, PEMP, ‘dolphin’, 245
 **ku(r,R)iap*, POc, ‘dolphin’, 245
 **kuru*, PPn, ‘*Myripristis* sp.’, 55
 **kuru*, PCP, ‘*Myripristis*’, 54
 **kurudu*, POc, ‘owl’, *see* **kuru(dr,d)u*
 **kuru(dr,d)u*, POc, ‘owl’, 330
 **(ku(r,l)u)ku(r,l)u*, POc, ‘pigeon sp.’, 319
 **kuru[ru]*, POc, ‘*Myripristis* spp., squirrelfish’, 54
 **kuRapu*, PMP, ‘*Epinephelus* sp.’, 64
 **kuRapu*, POc, ‘rock-cod, *Epinephelus* sp. or spp. including *E. lanceolatus*, Queensland grouper’, 145, 148
 **kuRapu*, POc, ‘rock-cod, *Epiphenelus* sp. or spp. including *E. lanceolatus*, Queensland grouper’, 64
 **kuRau*, POc, ‘frog taxon’, 263
 **kuRaw*, PMP, ‘edible marine fish’, 36
 **kuRita*, PAn, ‘octopus’, 199
 **kuRita*, POc, ‘generic for octopus’, 199
 **kuRo*, POc, ‘bony fish, probably *Albula*’, 36
 **kuSkuS*, PMP, ‘claw, finger, toenail’, 278
 **kutu*, PMP, ‘louse’, 374
 **kutu*, POc, (1) ‘louse (generic)’, (2) ‘head louse’, 374
 **kuvi*, PEOc, ‘Flycatcher, *Myiagra* sp.’, *see* **k(o,u)vi*
 **(k^(w),g)i(l,n)e*, POc, ‘Singing Parrot, *Geoffroyus heteroclitus*’, 327
 **k^(w)adroRa*, POc, ‘phalanger, cuscus’, 225

- **k^wak(a,e)*, PCP, '*Lutjanus monostigma*', 78
- **k^warawa*, POc, 'k.o. shark', 32
- **k^waru*, POc, '*Sardinella*, sardine', 39
- **k^waru-k^waru*, POc, 'cockroach', 403
- *[*k^we*]*k^wek^we*, POc, 'k.o. frog', 264
- **k^(w)ilo(ki)*, POc, 'female *Eclectus* Parrot', 323
- **k^walau*, POc, 'Bismarck Scrub Fowl, *Megapodius eremita*', see **k^wal(i)au*
- **k^wal(i)au*, POc, 'Bismarck Scrub Fowl, *Megapodius eremita*', 306
- **IVvusi*, PSOc, 'cuckoo', 329
- **labaw*, PMP, 'rat, mouse', 232
- **labe*, PCP, '*Labridae*, wrasse', 95
- **la(b,p)(o,u)*, POc, 'rat taxon', 232
- **labu*, POc, 'rat taxon', see **la(b,p)(o,u)*
- *[*la*]*b^wa(s,j)i*, POc, 'moray eel', 44
- **laci*, POc, '*Scomberoides* spp., leatherskin, including *S. lysan*', 71, 145, 148, 151
- **lafī*, PPn, 'wrasse or parrotfish spp.', see **la-lafī*
- *(*lafu*)*lafulafu*, PPn, 'wader sp.', 364
- **lai*, PPn, '*Scomberoides*', 71
- **lajay*, PMP, 'coral', 208
- **laje*, POc, 'generic for branching corals', 208
- **lajih*, PMP, 'dolphinfish', 71
- **laka*, PNCV, 'White-eye, *Zosterops* sp.', 345
- **laki*, POc, 'fantail', 343
- **lakia*, PNPn, 'White-capped Noddy, *Anous minutus*', see *[*ta*]*lapiti*
- **lako*, PEOc, (1) 'cone or trochus shell', (2) 'various ornaments made from this', 187
- **lakuya*, PCP, 'blenny', see **l(o,a)kuya*
- **la-lafī*, PPn, 'wrasse or parrotfish spp.', 95
- **lalak*, PMP, 'trochus shell', 186
- **lala(k)*, POc, (1) '*Trochus* spp., including *T. niloticus* and possibly *T. stellatus*', (2) 'rings or armlets made of this', 186
- **lalali*, **ali*, PCP, 'flatfish', 118
- *[*l*]*alali*, POc, 'flatfish incl. flounders, soles', 118
- **lalay*, PAn, 'cicada', 397
- **l(a,e)le*, POc, 'cicada', 397
- **lalī*, PPn, 'red rock cod spp.', 67
- *((*l,R*)(*a,u*))*muk^(w)o*, POc, 'dove sp.', 316
- **laṇaw*, PMP, 'botfly, bluebottle', 385
- **laṇo*, POc, 'fly', 385
- **lapaq*, POc, 'various flat fishes incl. sole and flounder', 118
- **lapi*, PEOc, 'wrasse', 95
- **lapiti*, PNPn, 'Black-naped Tern, *Sterna sumatrana*', see *[*ta*]*lapiti*
- **lapo*, POc, 'rat taxon', see **la(b,p)(o,u)*
- **lapu*, POc, 'rat taxon', see **la(b,p)(o,u)*
- **laḍi*, PCP, '*Scomberoides* sp.', 71
- **lau*, POc, '*Plectorhinchus* spp., banded sweetlips', 80
- **laulau-fau*, PCP, '*Zanclus canescens*, Moorish idol', 101
- **lavo*, PNCV, 'skipper, blenny', 99
- **lawaq*, PAn, 'spider', 409
- **lawaq*, POc, 'spider, spider web', 409
- **lawe*, POc, 'tail feather, plume', 274
- **laweja*, PCP, '*Alectis indicus*, plumed trevally or mirrorfish', 73
- **lawi*, PMP, 'tail feather', 274
- **lejaṇ*, PWOC, 'nit', 376
- **lele*, POc, 'cicada', see **l(a,e)le*
- **lele-fua*, PNPn, 'k.o. moth', see *[*pu*]*lele-fua*
- **l(i)aṇ*, Proto Southern Melanesian, 'duck', 295
- **likāpi*, Proto Chuukic, 'a bird', 330
- *(*li*)*kapilei*, PMic, 'cuckoo', 330
- **liṇo-liṇo*, PROc, 'night insect, probably a cricket', 396
- **lio-lio*, POc, '*Pseudobalistes fuscus*, brown triggerfish', 123
- *[*l,n*]*ipon*, POc, 'tooth, tusk', 266
- **lisaq*, POc, 'nit', 375
- **liseqeS*, PAn, 'nit, louse egg', 375
- **lofa*, PPn, 'petrel or other large sea bird', 353

- **loi*, PPn, ‘*Cephalopholis argus*, peacock rock cod’, 67
- **l(o,a)kuya*, PCP, ‘blenny’, 99
- **loli*, PCP, ‘sea cucumber taxon’, 205
- **lō-qata*, PPn, ‘large ant’, 392
- **loRo*, PMP, ‘red tree ant’, 391
- **loRo*, POc, ‘large stinging red ant’, 391
- **luar*, POc (?), ‘eagle’, 301
- **lubo*, PROc, ‘*Caranx* spp.’, 72
- **lulu*, PROc, ‘Barn Owl, *Tyto alba*’, 331
- **lumuk*^(w)*o*, POc, ‘dove sp.’, *see* *((*l,R*)(*a,u*))*muk*^(w)*o*
- **lupo*, PPn, ‘*Caranx* spp.’, 72
- **lupo-lupo*, PPn, ‘juvenile *Caranx* spp.’, 72
- **luRa*, PROc, ‘small shrimp’, 168
- **ma(c,s)i-ma(c,s)i*, PCP, ‘*Naso* sp.’, 107
- **magaRut*, POc, ‘flying fish’, 147, 148
- **makan*, PNGOc, ‘wallaby, *Macropus agilis*’, 222
- **maka(o,u)r*, POc, ‘Kyphosidae, drummer’, 87
- **makaur*, POc, ‘Kyphosidae, drummer’, *see* **maka(o,u)r*
- **ma(k,q)eto*, POc, ‘a dark fish, possibly *Ctenochaetus striatus*’, 106
- **makini*, PROc, ‘to be stung’, 382
- **ma-kini(t)*, POc, ‘mosquito’, 382
- **mako*, PNPn, ‘small bird sp.’, 351
- **mala*, POc, ‘resembling’, 72
- **mala*, PPn, ‘k.o. fish’, 72
- **mala*, PSOc, ‘hawk’, 303
- **malau*, PPn, ‘general term for a number of fishes of the genera *Holocentrus*, *Adioryx*, *Myripristis* and *Flammeo*, soldier fishes and squirrelfishes’, 55
- **malau-taqa*, PPn, ‘*Adioryx* sp.’, 55
- **malayo*, POc, ‘sea eel, possibly generic’, 46
- **maleña*, POc, ‘k.o. parrotfish’, *see* **me[l,n]aŋa~*ma[l,n]eña*
- **mali-boŋi*, POc, ‘flying fox’, 236
- **mali-b^weka*, POc, ‘flying fox, large fruit bat’, 236
- **malisa*, POc, ‘barracuda’, 62
- **mama*, PPn, ‘chiton’, 198
- **mama*, Proto SE Solomonian, ‘k.o. anemone or jellyfish’, 210
- **(ma)manu*, POc, ‘*Scarus* spp.’, 98
- **mamanu*, PPn, ‘*Scarus* spp.’, 98
- **mamin*, PMP, ‘wrasse, *Cheilinus* spp.’, 92
- **mamin*, POc, ‘*Cheilinus undulatus*, double-headed Maori wrasse and possibly other wrasse spp.’, 92, 147, 148, 160
- **mamula*, POc, ‘carangid’, 70
- **manak(V)*, POc, ‘green turtle, *Chelonia mydas*’, 251
- **maneja*, POc, ‘k.o. parrotfish’, *see* **me[l,n]aŋa~*ma[l,n]eña*
- **manini*, PROc, ‘*Acanthurus triostegus*, convict tang’, 107
- **manivi*, PCP, ‘*Pempheris* sp.’, 87
- **(m,p)anoko*, PPn, ‘generic for gobies, mudskippers, blennies’, 99
- **mansar*, PCEMP, ‘bandicoot, marsupial rat’, 220, 228
- **manser*, PCEMP, ‘bandicoot, marsupial rat’, 220
- **manu*, PMic, ‘living creature of land or air’, 272
- **manu*, POc, ‘*Scarus* spp.’, *see* **(ma)manu*
- **manuai*, PAdm, ‘sea eagle’, *see* **manu(w)ai*
- **manuy*, PSV, ‘bird’, 272
- **manuk*, PMP, ‘bird, fowl’, 284
- **manuk*, POc, (1) ‘flying creature’, (2) ‘animal’, 271, 416, 421, 443, 444, 446, 447, 449, 452
- **manuk*, POc, ‘Red Jungle-fowl, *Gallus gallus*’, 284
- **manuka*, POc, ‘sea eagle’, 297
- **manuk-lapat* [‘big bird’], POc, ‘White-bellied Sea Eagle, *Haliaeetus leucogaster*’, 297
- **manu-manuk*, POc, ‘general term for insects and other small land invertebrates’, 416, 421, 450–452

- **m(a,o)nuRV*, POc, 'Naso sp., unicornfish', 102
 **manu(w)ai*, PAdm, 'sea eagle', 298
 **mañipo*, POc, 'k.o. wasp', 389
 **mañar*, PMic, 'flying fish', 48
 **mañewa*, POc, 'k.o. shark', 29, 31, 129
 **mañō*, PPn, 'general term for shark spp.', 32
 **maqeto*, POc, 'a dark fish, possibly *Ctenochaetus striatus*', see **ma(k,q)eto*
 **maqito*, PPn, 'Acanthuridae, possibly *Ctenochaetus striatus*, lined bristletooth', 106
 **marari*, PPn, 'wrasse or parrotfish', see **m[e,a]rari*
 **marari*, PCP, '*Novaculichthys*, wrasse', see **m[e,a]rari*
 **[m,k]arawa*, POc, 'green parrotfish spp.', 97
 **marawa*, POc, 'spinefoot sp.', 110
 **marawa*, PPn, 'rabbitfish, *S. rostratus*' [*S. argenteus*], 110
 **maraya*, PROc, 'sea eel', 46
 **marewe*, POc, 'parrot', 328
 **marotV*, POc, '*Nemipterus* spp.', 79
 **marup*, Proto South Melanesian, 'falcon', 304
 **maRa*, POc, '*Acanthurus* sp., possibly *A. xanthopterus*, yellowfin surgeonfish', 103
 **masa*, PCP, 'a small dark Acanthuridae, possibly *Zebbrasoma scopas*, blue-lined tang or *A. pyroferus*, mimic surgeonfish', 107
 **masi-masi*, PPn, '*Coryphaena hippurus*, dolphinfish', 73
 **masi-masi*, PCP, 'Naso sp.', see **ma(c,s)i-ma(c,s)i*
 **mata qi taliņa*, PCP, 'hammerhead shark', 33
 **mata*, POc, 'the operculum or trapdoor of certain gastropod spp.', 201
 **mata-buku*, PEOc, '*Turbo* spp.', 183
 **mataele*, PPn, 'Serranidae', 67
 **matu*, PPn, '*Gerres* spp., mojarras', 79
 **matu*, PCP, '*Gerres*', 79
 **matu*, PROc, '*Gerres* spp., silver biddy', 79
 **matuku*, PPn, 'Reef Heron, *Egretta sacra*', 292
 **matu-xurau*, PCP, '*Parupeneus* sp.', 86
 **(maua)kena*, PNPn, 'booby, *Sula* sp.', 356
 **maya*, POc, 'Osprey, *Pandion haliaetus*', 299
 **me[l,n]aņa~*ma[l,n]eņa*, POc, 'k.o. parrotfish', 97
 **memea*, PPn, '*Mulloidies* sp., goatfish', 86
 **menaña*, POc, 'k.o. parrotfish', see **me[l,n]aņa~*ma[l,n]eņa*
 **merari*, POc, 'wrasse or parrotfish', 94
 **m[e,a]rari*, PPn, 'wrasse or parrotfish', 94
 **m[e,a]rari*, PCP, '*Novaculichthys*, wrasse', 94
 **midi*, POc, 'honeyeater', 346
 **mimis-mata*, POc, 'stick insect', 398
 **miti*, PPn, 'Striped Starling, *Aplonis tabuensis*', 349
 **mō*, PPn, 'Sooty Crane, *Porzana tabuensis*', see **mo(s)o*
 **moa*, POc, 'boxfish', 124
 **moa*, PPn, 'fowl', 286
 **moa-moa*, PPn, 'Ostraciidae, boxfish', 125
 **moa(moa)*, PCP, '*Ostracion*', 124
 **moaña*, PNPn, '*Parupeneus* spp.', 86
 **mo(g,k)o*, POc, 'k.o. snake', 260
 **moko*, POc, 'k.o. snake', see **mo(g,k)o*
 **moko*, PPn, 'lizard', 261
 **mokolā*, Proto Tahitic, 'duck', 296
 **monuRV*, POc, 'Naso sp., unicornfish', see **m(a,o)nuRV*
 **moņa-moņa*, PPn, 'cockroach', 403
 **mo(s)o*, PPn, 'Sooty Crane, *Porzana tabuensis*', 309
 **moto*, PROc, 'k.o. fish', 63
 **moto-moto*, PPn, '*Sphyræna* sp.', 63
 **moto-moto*, PCP, 'growth stage of *Sphyræna* sp.', 63

- **mū*, PPn, ‘flying insect’, 416
 *(*m,b*)*ū*, PCP, ‘*Monotaxis grandoculis*, large-eyed sea bream’, 83
 *-*muken*, PMP, ‘omen dove’, 316
 **muk*^(w)*o*, POc, ‘dove sp.’, *see* *(*l,R*)(*a,u*)*muk*^(w)*o*
 **muno*[-*muno*], POc, ‘caterpillar, grub’, 405
 **munua*, PCP, ‘large *Epinephelus* sp.’, 67
 **muquŋ*, PMP, ‘k.o. fish’, 109
 **muqu*(*ŋ*), POc, ‘*Siganus* taxon, poss. *S. spinus*’, 109, 146, 148
 **muroR*, POc, ‘*Siganus argenteus*, silver or rabbit-faced spinefoot’, 110
 **musi*, POc, ‘cockroach’, 403
 **mutu*, PMP, ‘damselfish’, 90
 **mutu*, POc, ‘Pomacentridae, particularly *Abudefduf*’, 90
 **mutu*[*mutu*], PPn, ‘Pomacentridae’, 91
 **m*^w*acasi*, POc, ‘goatfish’, 85
 **m*^w*agaRut*, POc, ‘Exocoetidae, flying fish’, 48
 **m*^w*ajar*, POc, ‘bandicoot’, 228
 **m*^w*akoR*, POc, ‘*Hemiramphus*, garfish’, 50
 **m*^w*alau*, PROc, ‘squirrelfish, possibly generic for a number of spp.’, 55
 **m*^w*ali-X*, PWOC, ‘millipede’, 407
 **m*^w*anagi*, **m*^w*am*^w*agi*, POc, ‘larger cuttlefish, *Sepia* sp. or spp.’, 200
 **m*^w*ata*, PEOc, ‘snake, worm’, 413
 **m*^w*ata*, POc, ‘snake (generic)’, 259
 **m*^w*ata-m*^w*ata*, POc, ‘generic for worms and worm-like creatures’, 412
 **m*^w*a*(*toqu*), PNCV, ‘boxfish’, 124
 **m*^w*alau*, POc, ‘Bismarck Scrub Fowl, *Megapodius eremita*’, 305
 **m*^w*aRaki*, PSOC, ‘Emerald Dove, *Chalcophaps indica*’, 316
 **m*^w*en*, PNCal, ‘Barn Owl, *Tyto alba*’, 333
 *(*n,ñ*)*iku*~**nuki*, POc, ‘nest’, 279
 *(*n,ñ*)*i*(*n,ñ*)*i*, POc, ‘bee, buzzing insect’, 388, 389
 *(*n,ñ*)*i*(*n,ñ*)*ipo*, POc, ‘k.o. wasp’, 390
 **nai-ufi*, PPn, ‘k.o. large shark, probably tiger or grey reef shark’, 33
 **naniyo*, Proto Central Papuan, ‘wasp’, 390
 **nek-nek*, PMP, ‘gnat, sandfly, fruit fly’, 384
 **nifa*, PPn, ‘*Sardinella* sp.’, 39
 **nik-nik*, **ñik-ñik*, PMP, ‘tiny biting insect: gnat, sandfly, fruitfly’, 383
 **niku*(*i*), PEMP, ‘nest’, 279
 **niku-niku*, POc, ‘small biting fly’, 383
 **nipay*, PMP, ‘snake’, 259
 **nipe*, POc, ‘snake’, 259
 **nipon*, POc, ‘tooth, tusk’, *see* *[*l,n*]*ipon*
 **niva*, PCP, ‘*Sardinella* spp.’, 39
 **nofu*, PPn, ‘*Synaceja verrucosa*, Scorpaenidae spp.’ [now *Synanceiidae*], 120
 **nonok*, POc, ‘sandfly, midge’, 384
 **nopuq*, POc, ‘*Synanceia*, stonefish’, *see* *(*ñ,n*)*opuq*
 **nosa*, PEOc, ‘*Lethrinus* sp.’, *see* **n*(*u,o*)*sa*
 **novu*, PNCV, ‘scorpion, venomous fish’, 120
 **novu*, PCP, ‘*Synanceja verrucosa*, stonefish’, 120
 nuki*, POc, ‘nest’, *see* *(*n,ñ*)*iku*~nuki*
 **nus*, POc, ‘squid’, 200
 **nusa* (doublet **nus*), POc, ‘small reef squid (*Loligo* spp.) and smaller cuttlefish (*Sepia* spp.)’, 200
 **n*(*u,o*)*sa*, PEOc, ‘*Lethrinus* sp.’, 83
 *(*ñ,n*)*opuq*, POc, ‘*Synanceia* spp., stonefishes’, 119
 *(*ñ,n*)*opuq*, POc, ‘*Synanceia* spp., stonefish’, 145, 148, 150, 418
 **ñamuk*, PMP, ‘mosquito’, 380
 **ñamuk*, POc, ‘mosquito’, 380
 **ñepuq*, PMP, ‘stonefish’, 119
 ñiku*, POc, ‘nest’, *see* *(*n,ñ*)*iku*~nuki*
 **ñiñi*, POc, ‘bee, buzzing insect’, *see* *(*n,ñ*)*i*(*n,ñ*)*i*
 **ñiñipo*, POc, ‘k.o. wasp’, *see* *(*n,ñ*)*i*(*n,ñ*)*ipo*
 **ŋako*, POc, ‘Night Heron, *Nycticorax* sp.’, 293
 **ŋāŋā*, PMic, ‘sea bird, duck’, 294

- **ηaRa*, POc, 'duck', 293
 **ηaRaQ*, PMP, 'wild duck', 293
 **ηati-ηati*, PWOC, 'mosquito', 383
 **ηiji*, POc, 'sandfly', *see* **ηi(s,j)i*
 **ηiη*, PMP, 'buzz, hum', 383
 **ηiji(η)*, POc, (1) 'buzz as a mosquito',
 (2) 'mosquito' (onomatopoeic),
 383
 **ηi(s,j)i*, POc, 'sandfly', 384
 **ηono*, PCP, 'Common Noddy, *Anous*
stolidus', 369
 **ηū*, PPn, 'squid', 200
 **ηuju*, POc, 'mouth, lips, snout, beak',
 277
 **ηujula*, PCP, '*Lethrinus elongatus*', 83
 **ηutuloo*, PPn, '*Epibulis insidiator*,
 slingjaw wrasse, or other
 long-nosed wrasse', 95
 **η^wajala*, PCP, '*Epinephelus* spp.', 67
 **η^wa(k,x)a*, PCP, '*Hemiramphus*', 50
 **η^waḏaḏi*, PCP, '*Parupeneus* sp.', 85
 *(*o,u*)*du*, PEOc, '*Leodis viridis*, palolo
 worm', 212
 **odu*, Proto SE Solomonian, '*Leodis*
viridis, palolo worm', 212
 **oje*, PCP, 'Mullidae', 86
 *[*oka*]*oka*, POc, 'k.o. fish, possibly
Lethrinus spp.', 83
 **oma*, PPn, 'sponge', 213
 **ova*, PCP, 'nest', 280
 **ovi(s)*, **ovis-i-*, PEOc, (1) 'brood, sit on
 eggs'; (2) 'cover chicks with
 wings', 280
 **paba*, POc, '*Parribacus* sp.
 (Scyllaridae), slipper lobster', *see*
 *[*pa*]*paba*
 **paia*, PWOC (?), 'dog', 242
 **pakewa*, PPn, '*Carangoides ferdau*
jordan', 31
 **paki(paki)*, PPn, 'Portuguese man o' war
 (bluebottle), *Physalia* sp.', 209
 **pakit*, **pakit-i-*, PROc, 'search hair for
 lice', 377
 **palaja*, POc, 'rabbitfish, *Siganus* spp.',
 145, 148
 **palaja*, POc, '*Siganus* spp., rabbitfish',
 109
 **palani*, PPn, '*Acanthurus* sp. of large
 size and elongate shape', 107
 **palata*, PMP, 'fish sp.', 73
 **palata*, POc, '*Coryphaena hippurus*,
 dolphinfish', 73, 146, 148
 **paliR*, PMP, 'surgeonfish', 103
 **paliR*, POc, '*Acanthurus*, surgeonfish',
see *[*qa*]*paliR*
 **palolo*, PPn, (1) 'palolo worm', (2)
 'name of the months when this
 rises', 212
 **palu*, PPn, 'oilfish; deep-sea snapper', 78
 **panapa*, POc, 'garfish and needlefish
 taxon', 51, 147, 148
 **panij*, PMP, 'wing', 132, 275
 **panoko*, PPn, 'generic for gobies,
 mudskippers, blennies', *see*
 *(*m,p*)*anoko*
 **p(a,e)ηa*, POc, '*red Lutjanus* spp.', 77
 **panoda*, POc, 'gather seafood on the
 reef', 162
 **papa*, PMP, 'praying mantis,
 grasshopper', *see* *(*kali*)*papa*
 **papa*, POc, 'praying mantis', 398
 *[*pa*]*paba*, POc, '*Parribacus* sp.
 (Scyllaridae), slipper lobster',
 167
 **papu*, PPn, '*Cheilinus* sp.', 94
 **paqala*, PPn, '*Acanthocybium solandri*,
 wahoo', 116
 **pa(R,r)a(C)*, POc, 'frog', 263
 **paRapaRa*, PEOc, 'flycatcher', 345
 **paRi*, POc, (1) 'stingray', (2) 'ray
 (generic)', 34, 144, 148, 150
 **paRia*, PWOC, 'k.o. big lizard', 255
 **paRih manuk*, PMP, '? ray', 35
 **paRi-manuk*, POc, '*Aetobatus narinari*,
 spotted eagle ray', 35
 **paRi-manuk*, POc, 'spotted eagle ray,
Aetobatus narinari', 147, 148,
 159
 **paRiS*, PAn, 'stingray', 34
 *(*p,f*)*āsua*, PPn, '*Tridacna* clam sp.', 190

- **pāsua*, Proto Eastern
Polynesian–Northern Outlier,
‘*Tridacna* sp. or spp.’, 190
- **patuki*, PPn, ‘hawkfish’, 91
- **paya*, PMP, ‘k.o. small fish, sardine or
anchovy’, 38
- **paya*, POc, ‘k.o. small fish, sardine or
anchovy’, 38, 147, 148
- **peka-peka*, PPn, (1) ‘small bat’, (2)
‘white-rumped swiftlet’, 237
- **peñu*, PAn, ‘turtle’, 249
- **peña*, POc, ‘red *Lutjanus* spp.’, *see*
**p(a,e)ŋa*
- **pepele*, Proto NW Solomonian,
‘butterfly’, 379
- **pili*, PPn, ‘gecko; adhere to’, 257
- **pilu*, POc, ‘*Caranx* sp. or spp., trevally’,
69, 145, 148, 151
- **p<in>aŋoda*, **piŋoda*, POc, ‘seafood
gathered on the reef, edible sea
invertebrates’, 162
- **p<in>aŋoda*, POc, ‘seafood gathered on
the reef, edible sea invertebrates’,
421, 437–439, 452
- **pipi*, PPn, ‘probably general name for
small or medium-sized circular
bivalves, including cockles,
Asaphis spp.’, 191
- **piRa(q)*, POc, ‘*Zebрасoma veliferum*,
sailfin tang’, 103
- **piRu-piRu*, POc, ‘Istiophoridae’, 117
- **piRu(q)*, POc, ‘fan palm’, 117
- **pit(a,i)ri*, PNCal, ‘rail’, 309
- **pitikole*, Proto NW Solomonian, ‘fantail’,
343
- **pitiri*, PNCal, ‘rail’, *see* **pit(a,i)ri*
- **pone*, PPn, ‘*Acanthurus* sp. or
Ctenochaetus striatus’, 106
- **poñu*, POc, ‘turtle (generic)’, 249
- **pora*, POc, ‘owl’, 332
- **[poto]poto*, POc, ‘pufferfish,
porcupinefish’, 126
- **puaka*, PPn, ‘pig’, 239
- **pud(o,u)*, POc, ‘species of possum or
cuscus’, *see* **pu(dr,d,j)(o,u)*
- **pu(dr,d,j)(o,u)*, POc, ‘species of possum
or cuscus’, 226
- **pue*, PROc, ‘Booby, *Sula* sp.’, 355
- **puj(o,u)*, POc, ‘species of possum or
cuscus’, *see* **pu(dr,d,j)(o,u)*
- **(p,b)ula*, POc, ‘k.o. sea cucumber’, 204
- **pulan*, POc, ‘bony fish, *Megalops*,
Albula spp.’, *see* **pu-pulan*
- **pule*, PPn, ‘cowrie’, 186
- **[pu]lele-fua*, PNPn, ‘k.o. moth’, 380
- **pulewa*, PEOc, ‘k.o. eel’, 48
- **pulewa*, PPn, ‘marine substance/creature
with stone-like or rough exterior’,
210
- **pulu*, POc, ‘body hair, fur, feathers’, 273
- **punay*, PAn, ‘dove, *Treron* sp.’, 310
- **puŋa*, PPn, ‘coral rock’, 209
- **pupuk*, POc, ‘k.o. borer wasp or bee that
infests wood and bamboo’, 388
- **pu-pulan*, POc, ‘bony fish, *Megalops*,
Albula spp.’, 37
- **puqaya* + modifier, POc, ‘seahorse’, 56
- **puqaya*, POc, ‘crocodile’, 252
- **puRa-puRas*, POc, ‘whale’, 243
- **puRuq*, PAn, ‘quail, partridge’, 307
- **puRu(q)*, POc, ‘quail’, 307
- **pusi*, PPn, ‘sea eel generic,
Gymnothorax spp.’, 44
- **pusiRa*, POc, ‘Starling, *Aplonis* sp.’, 348
- **p^walapo*, POc, ‘rat taxon’, 233
- **p^wi(r,R)itu(r,R,s)*, PWOC, ‘k.o. goatfish’,
86
- **p^woca*, PMic, ‘turtle shell’, 268
- **p^wa(r,R)a*, POc (?), ‘hawk’, 302
- **p^wipipi*, POc, ‘small wader taxon’, 360
- **p^wiri(p)*, POc, ‘parrot sp.’, 326
- **p^wisu*, POc, ‘Cuckoo-shrike, *Coracina*
sp.’, 342
- **qabated*, PMP, ‘sago grub’, 404
- **qalawa*, PPn, ‘k.o. shark’, 32
- **qali-benben*, PAn, ‘butterfly’, 378
- **qalili*, PPn, ‘cat’s eye shell, Turbo sp.’,
182
- **qaliliŋ*, PMP, ‘cat’s eye shell’, 182
- **qaliliŋ*, POc, ‘*Turbo petholatus*, tapestry
turban; possibly generic for
several or all *Turbo* spp.’, 182

- **qalimanjaw*, PMP, 'mangrove crab', 172
 **qalimajo*, POc, 'large mangrove crab, *Scylla serrata* (Portunidae) and probably other portunids', 172
 **qalipan*, POc, 'centipede', 406
 **qali-petpet*, PMP, 'firefly', 399
 **qali-popot*, POc, 'firefly', 399
 **qali-totop*, POc, 'firefly', *see* *(k,q)ali-totop
 **qalojo*, PPn, '*Acanthurus* sp., probably *A. lineatus*, blue-lined surgeonfish', 105
 **qalu*, PMP, 'barracuda', 62
 **qalu*, POc, '*Sphyræna* taxon, incl. *S. barracuda*, great barracuda', 62, 144, 148
 **qalu-hipan*, PMP, 'centipede', 406
 **qalu-Sipan*, PAn, 'centipede', 406
 **qanupe*, PEOc, 'caterpillar', 206, 405
 **qanupe*, POc, 'caterpillar or k.o. sea cucumber (indeterminate)', 206, 405
 **qanupe*, PWOC, 'sea cucumber, holothurian', 206, 405
 *[q]aliR, POc, '*Acanthurus*, surgeonfish', 103
 **qapator*, POc, 'sago grub, edible', 404
 **qara-bembem*, PPT, 'butterfly', 379
 **qarojo*, PMP, '*Acanthurus* spp.', 104
 **qarojo*, POc, 'surgeonfish, *Acanthurus* sp.', 104, 147, 148
 **qaRuas*, PMP, 'young growth stage of mullet, *Neomyxus chaptalii*', 59
 **qaRua(s)*, POc, 'mullet (generic)', *see* *(k,q)aRua(s)
 **qasan*, POc, 'gills', 129
 **qaso*, PPn, 'shark sp.', 33
 **qaso*, PCP, 'k.o. large shark', 33
 **qasuli*, POc, 'k.o. sea eel', *see* *(k,q)asuli
 **qasuli*, PCP, 'k.o. sea eel', 47
 **qateluR*, PMP, 'egg, testicle', 278
 **qatoluR*, POc, 'egg', 278
 **qatu*, PPn, '*Katsuwonus pelamis*, skipjack tuna', 112
 **qatu*, PCP, 'possibly generic for *Thunnus* and *Katsuwonus* spp.', 112
 **qatulay*, PMP, '*Trachurops crumenophthalmus*, the big-eyed scad', 69
 **qatule*, POc, '*Selar* spp. including *S. crumenophthalmus*, big-eyed scad', 69, 145, 148, 151
 **qatule*, PPn, '*Selar crumenophthalmus*, silver scad', 69
 **qatule*, PCP, '*Selar crumenophthalmus*', 69
 **qatun*, POc, '*Katsuwonus pelamis*, skipjack tuna', 112, 148, 150, 160
 **qaua*, PPn, 'mullet sp.', 59
 **qaua*, PCP, 'juvenile mullet', 59
 **qavali*, PCP, '*Acanthurus* sp.', 104
 **qawa*, **qawan*, PMP, '*Chanos chanos*, milkfish', 41
 **qawa*, PPn, '*Chanos chanos*, milkfish or salmon herring', 41
 **qawa*, PCP, '*Chanos*', 41
 **qawaaq*, POc, '*Chanos chanos*, milkfish', 41, 144, 148, 160
 **qayuyu*, PMP, 'coconut crab, *Birgus latro*', 169
 **qayuyu*, POc, 'coconut crab, *Birgus latro*', 169
 **qono*, PPn, '*Sphyræna* spp., barracuda', 61
 **qonos*, POc, 'mature *Sphyræna* spp., possibly generic for all barracuda', 61, 144, 148
 **qova*, PNCV, 'heron, probably *Egretta* sp.', 290
 **qudan*, PAn, 'shrimp, lobster', 165
 **qufu*, PPn, 'wrasse or parrotfish', 98
 **qulafi*, PPn, 'Scaridae spp.', 96
 **qulapi*, PMP, 'parrotfish', *see* *[(k,q)]ulapi
 **qulapi*, POc, 'parrotfish spp., incl. *Hipposcarus longiceps*, long-nosed parrotfish', *see* *(k,q)ulapi
 **qulavi*, PCP, '*Hipposcarus longiceps*', 96
 **qulej*, PAn, 'maggot', 414

- **qulej-an*, PMP, 'have worms', 415
 **qulej-qulej*, PMP, 'lots of worms; crawling with worms, extremely wormy', 416
 **quloc*, POc, 'maggot', 414
 **quloc-a(n)*, POc, 'be maggoty', 415
 **qulo-quloc*, POc, 'full of maggots', 416
 **qulua*, POc, 'carangid', 70
 **qulua*, POc, '*Caranx* sp., possibly *C. ignobilis*, big-headed jack (Carangidae)', 151
 **qulua*, POc, '*Caranx* sp., possibly *C. ignobilis*, big-headed jack', 145, 148
 **qulua*, PPn, '*Caranx* sp., probably mature phase of *C. ignobilis*', 70
 **qulu-tuki*, PPn, 'hawkfish', 92
 **qumanj*, PAn, 'hermit crab', 170
 **qumay*, PMP, 'unicorn fish, *Naso* spp.', 101
 **qume*, POc, '*Naso unicornis*, long-snouted unicornfish', 101, 146, 148, 160
 **qume*, PPn, '*Naso* sp., unicornfish', 101
 **qumutuR*, POc, '*Plectorhinchus* spp., sweetlips', see *(*k,q*)umutuR
 **qum^wan*, POc, (1) 'generic for hermit crabs', ? (2) 'generic for hermit and coconut crabs', 170
 **quna*, PPn, 'fish scale, turtle shell', 131
 **qunap*, PEOc, 'turtle shell, fish scales', 268
 **qunap[i]*, POc, 'fishscale', 131
 **quŋa*, PPn, 'generic for hermit crab', 170
 **qupa*, PMP, 'hen, egg-laying chicken', 287
 **qupa*, POc, 'hen', 287
 **qūqū*, PPn, 'coconut crab, *Birgus latro*', 169
 **qura*, PPn, 'crayfish', 166
 **quranj*, POc, 'generic for prawns and shrimps, crayfish and lobsters', 165, 167, 168
 **quSaNap*, PAn, 'scale of fish', 131
 **qutu*, PPn, '*Aprion virescens*, grey jobfish', 75
 **qutu*, PCP, '*Aprion virescens*, grey jobfish', 75
 **qutur*, PMP, 'green jobfish', 75
 **qutur*, POc, '*Aprion virescens*, green jobfish', 75
 **qutur*, POc, '*Sphyraena* sp., barracuda', 63
 rabanj*, PAdm, 'tern', see **baranj*~rabanj*
 **rakum(u)*, POc, 'k.o. large crab, probably a land crab', 173
 **r(a,e)nu(a,e)*, PCP, '*Kyphosus*', 87
 **r(a,e)nu(a,e)*, PROc, '*Kyphosus*, rudderfish', 87
 **ranue*, PPn, '*Kyphosidae*', 87
 **rato*, POc (?), 'whale', 243
 **renu(a,e)*, PCP, '*Kyphosus*, rudderfish', see **r(a,e)nu(a,e)*
 **renu(a,e)*, PROc, '*Kyphosus*, rudderfish', see **r(a,e)nu(a,e)*
 **reŋas*, POc, 'small parrot sp.', see *(*ka*)reŋas
 **riŋa*, POc, 'orthopterous insect', 395
 **riuriu[kabe]*, Proto SE Solomonian, 'Willie Wagtail, *Rhipidura leucophrys*', 344
 **rō*, PPn, '*Siganus* sp.', 109
 **rō*, PCP, 'juvenile *Siganus*', 109
 **rokrok*, PMM ?, 'bullfrog', 265
 **roqa*, POc, 'eagle', 299
 **roRo*, POc, 'growth stage of *Siganus* spp.', 109
 **rowou*, Proto North Vanuatu, 'bonito, *Thunnus* sp.', 116
 **ru(b,v)e*, PCP, 'Pacific Pigeon, *Ducula pacifica*', 314
 **rumane*, PPn, 'sea anenome', 207
 **ruve*, PCP, 'Pacific Pigeon, *Ducula pacifica*', see **ru(b,v)e*
 **ruyuj*, POc, 'dugong', 247
 **Rami*, PEOc, 'crustacean roe', 180
 **Ramuk^(w)o*, POc, 'dove sp.', see *((*l,R*)(*a,u*))muk^(w)o
 **Raŋa*, **Raŋak* or **Raŋar*, PMP, 'the spider conch, *Lambis lambis*', 181

- **Raŋa*, PEOc, 'duck', 294
 **Raŋa*, POc, '*Lambis* spp., esp. spider conch, *Lambis lambis*', 181
 **Rebek*, PMP, 'to fly', 281
 **Rije*, POc, '*Hemiramphus*, halfbeak', 49
 **Ropok*, POc, 'fly, jump', 281
 **Rumuk*^(w)*o*, POc, 'dove sp.', *see* **((l,R)(a,u))muk*^(w)*o*
 *(*s,ð*)*abi*, PCP, '*Acanthurus guttatus*, spotted surgeonfish', 104
 **s(a,ā)putu*, PPn, '*Lutjanus* and *Lethrinus* spp.', 76
 **saba(l)*, POc, 'petrel or albatross', 352
 *[*s,j*]*abiŋ*, POc, '*Acanthurus* spp., incl. *A. guttatus*, white-spotted surgeonfish', 104
 **sabutu*, POc, 'snapper (*Lutjanus*) or emperor (*Lethrinus*) sp. or spp.', 76, 83, 144, 148
 **sabutu*, PCP, '*Lutjanus* and *Lethrinus* spp.', *see* *(*ð,s*)*abutu*
 **saku*, PMP, 'needlefish', 51
 **saku*, POc, 'needlefishes, garfishes, long toms (*Belonidae*)', 51
 **saku*, POc, 'needlefish, garfish, long toms (*Belonidae*)', 116, 144, 148
 **sakulā*, PPn, 'swordfish, sailfish', 116
 **saku-laya*, PCP, 'swordfish, sailfish', 116
 **saku-layaR*, PMP, 'sailfish, swordfish', 116
 **saku-layaR*, POc, 'sailfish', 116, 144, 148, 159
 **sak*^w*a*, POc, 'grasshopper or stick insect', 396
 **salala*, PCP, '*Rastrelliger*', 115
 **sala(n,ŋ)*, POc, 'k.o. sea urchin with long black spines, probably *Diadema* sp. or spp.', 203
 **salaŋ*, POc, 'k.o. sea urchin with long black spines, probably *Diadema* sp. or spp.', *see* **sala(n,ŋ)*
 **saŋa-saŋa*, PMP, 'starfish', 206
 **saŋa-saŋa*, POc, 'a starfish', 206
 **sao*, POc, 'k.o. long tom', 52
 **sao-sao*, PPn, 'juvenile *Sphyraena* sp.', 52
 **sapulu*, POc, 'goatfish spp.', 86
 **sapulu(q)*, POc, 'bivalve mollusc, possibly *Pinna* sp.', 195
 **sarā*, PPn, 'small schooling fish', 60
 **sarā*, PCP, 'k.o. small schooling fish', 60
 **sara(Ra)*, POc, 'sardine-like fish, possibly *Atherinidae*', 60
 **saRawaki*, POc, 'k.o. sea urchin, probably *Echinometra* sp. or spp.', 203
 **sasā*, PPn, 'anchovy', 38
 **sau*, POc, 'Golden Whistler, *Pachycephala pectoralis*', 345
 **saum*^w*a*, Proto North Vanuatu, '*Scarus* sp., parrotfish', 98
 **sāwaki*, PPn, 'sea urchin with short spines', 203
 **sawane*, PPn, '*Lutjanus kasmira*', 78
 **s(a,i)waRa*, POc, '*Clupeidae*, sardine or herring', 40
 **seke*, POc, 'cuckoo, possibly *Centropus* sp.', 329
 **sele(kai)*, POc, 'tern', 366
 **seŋa*, POc, 'parrot sp.', 327
 *(*s,j*)*ege*, PEOc, 'grasshopper?', 397
 **seqe*, PPn, 'insect spp. including mantis, stick insect, locust', 397
 **sibi*, PWOC, 'k.o. snake', 261
 **siko*, POc, 'grasshopper', 396
 *(*s,j*)*iko*, POc, 'kingfisher', 336
 **simuk*, POc, 'mosquito, small biting fly', 382
 **sio(R,r)a*, PWOC, 'fish fin', 134
 **sipa*, POc, '*Hemiramphus* spp.', 50
 **sipa*, PPn, 'young flying fish', 50
 **sipi*, POc, 'parrot, perhaps Cardinal Lory, *Chalcopsitta cardinalis*', 324
 **sipi(r,R)i*, POc, 'Rainbow Lory, *Trichoglossus haematodus*, or Cardinal Lory, *Chalcopsitta cardinalis*', 324
 **si(r,R)(a,e)si(r,R)(a,e)*, **di(r,R)(a,e)di(r,R)(a,e)*, PNGOC, '*Petaurus breviceps*, sugar glider', 226

- **siri*, POc, ‘parrot, perhaps Cardinal Lory, *Chalcopsitta cardinalis*’, 325
 **siRik*, PMP, ‘dorsal fin’, 134
 **siRiko*, POc, ‘fish fin’, 134
 **sisi*, PPn, ‘a univalve mollusc’, 185
 **sisi[q]*, PMP, ‘edible snail’ (doublets
 **sisuq*, **susuq*), 184
 **sisiq*, POc, (1) ‘various small, snail-like
 gastropods of nerite family’, (2)
 ‘probably generic for a wider
 class of edible gastropods’, 184,
 421, 439–441, 443, 452
 **sisira*, Proto Malaita-Makira, ‘a barnacle
 or kind of small mollusc’, 179
 **sisiri*, Proto Malaita-Makira, ‘swiftlet’,
 335
 **sisi(rR)*, POc, ‘orthopterous insect’, 395
 **siwaRa*, POc, ‘Clupeidae, sardine or
 herring’, see **s(a,i)waRa*
 **soge*, PROc, ‘pigeon sp.’, 320
 **soke*, PPn, ‘Carangid’, see **soke(lau)*
 **soke(lau)*, PPn, ‘Carangid’, 73
 **sora*, PSOc, ‘fantail’, 344
 **sou* (?), POc, ‘heron’, 291
 **sua-sua*, POc, ‘goatfish’, 85
 **sulati*, POc, ‘worm’, 413
 **sulig*, PMP, ‘*Caesio* sp., fusilier’, 74
 **suli(k)*, POc, ‘*Caesionidae*, fusilier’, 74
 **sumu*, PPn, ‘*Balistidae*’, 121
 **sum^wit*, PSV, ‘Barn Owl, *Tyto alba*’, 333
 **sunjale*, PPn, ‘*Labridae*’, 95
 **surup*, POc, ‘*Lethrinus* spp.’, 82
 **susul*, POc, ‘*Lethrinus* spp.’, 82
 **SayaN*, PAn, ‘white ant, termite’, 394
 **Sikan*, PAn, ‘fish’, 28
 **Sipes*, PAn, ‘cockroach’, 402
 **(ð,s)abutu*, PCP, ‘*Lutjanus* and *Lethrinus*
 spp.’, 76
 **ðabi*, PCP, ‘*Acanthurus guttatus*, spotted
 surgeonfish’, see **(s,ð)abi*
 **ðaðā*, PCP, ‘*Spratelloides* sp.’, 38
 **ðuðu-walu*, PCP, ‘k.o. sea cucumber,
 probably *Holothuria* sp.’, 205
 **tā*, PCP, ‘*Naso* sp.’, 102
 **tabuRiq*, PMP, ‘conch shell trumpet’
 (dbl. **tabuRi*), 183
 **tabuRuRu*, POc, ‘k.o. beetle’, 401
 **tab^wale*, Proto North Vanuatu, ‘grouper’,
 67
 **tadruku*, PEOc, ‘generic for chitons’,
 197
 **tafaquli*, PPn, ‘*Caranx* sp., possibly *C.*
 lugubris’, 73
 **taf(o,u)raqa*, PPn, ‘whale’, 244
 **tahiwa*, PPn, ‘*L. monostigma*, one spot
 seaperch’, 77
 **taiko*, PPn, ‘petrel’, 353
 **ta(i)ko(k)*, PROc, ‘petrel’, 352
 **takere*, POc, ‘Fantail, *Rhipidura* sp.’,
 343
 **tako(k)*, PROc, ‘petrel’, see **ta(i)ko(k)*
 **tako-tako(k)*, *n-*, PSV, ‘petrel’, 352
 **taku(a,o)*, POc, ‘*Thunnus albacares*,
 yellowfin tuna’, 115
 **taku(a,o)*, PPn, ‘large tuna or skipjack’,
 115
 **takuhali*, PPn, ‘black and white banded
 sea snake’, 261
 **takulasi* or **takusali*, PROc, ‘sea snake’,
 261
 **takupu*, PNPn, ‘Red-footed Booby, *Sula*
 sula’, 356
 **taku-takun*, POc, ‘small coral fish,
 damsel fish or similar’, 91
 **tala*, PPn, ‘tern’, 368
 **talae*, PPn, ‘mudskipper’, 99
 **[ta]lakia*, PNPn, ‘White-capped Noddy,
 Anous minutus’, 369
 **tala-kisi*, PPn, ‘soldier or squirrelfish
 spp.’, 55
 **[ta]lapiti*, PNPn, ‘Black-naped Tern,
 Sterna sumatrana’, 369
 **taliku*, PEOc, ‘Carangid’, 72
 **taliŋa*, POc, ‘ear’, 133
 **taliŋa*, POc, ‘pectoral fins’, 133
 **tali-tali-quli*, PPn, ‘*Echeneis* sp., remora,
 and *Naucrates ductor*, pilot fish’,
 129
 **tanifa*, PPn, ‘fierce shark’, 39
 **tanifa*, PPn, ‘tiger shark’, 33
 **tanipa*, POc, ‘*Sardinella* spp., sardine’,
 38, 146, 148

- **taniva*, PCP, '*Sardinella*', 39
 **taŋafa*, PPn, '*Cheilinus* sp.', 93
 **taŋapa*(R,r), POc, 'large wrasse, including *Cheilinus* sp.', 93, 147, 148
 **taŋaqu*, PPn, '*Lutjanus* spp. including *L. vaigiensis* [*L. fulvus*] and probably other yellow or yellow-red species', 78
 **taŋava*, PCP, '*Cheilinus undulatus*', 93
 **taŋiRi*, PMP, '*Scomberomorus commerson*, Spanish mackerel', 114
 **taŋiRi*, POc, '*Scombridae* spp., prob. incl. *Scomberomorus commerson*, narrow-barred Spanish mackerel, and *Acanthocybium solandri*, wahoo', 114
 **taŋiRi*, POc, '*Scombridae* spp., prob. incl. *Scomberomorus commerson*, the narrow-barred Spanish mackerel, and *Acanthocybium solandri*, wahoo', 144, 148
 **taŋitani*, Proto North Vanuatu, 'goatfish', 86
 **tao-tao*, PPn, '*Fistularia* spp., probably including trumpetfish', 52
 **tao-tao*, PPn, '*Fistularia*, flutefish', 56
 **ta(ou)k*, POc (?), 'hawk, bird of prey', 302
 **tapatapa*, PPn, 'Moreton Bay Bug', 167
 **tape*, POc, 'k.o. bivalve', 196
 **tāpea*, PPn, 'generic for morays', 45
 **tapu*, POc, '*Labridae* sp.', 94
 **tapuRiq*, POc, (1) 'generic for conch shells, esp. triton's trumpet, *Charonia tritonis* and allied spp.; possibly extended to some *Cassis* (helmet) shells', (2) 'trumpet of *Charonia* shell', 183
 **tapu(s)*, **tapus-i-*, POc, 'seek lice', 377
 **tap^(w)a*, POc, 'glide, soar', 281
 **taqa*, PPn, '*Sargocentron spiniferum*, armoured soldierfish', 18, 53
 **taqa-malau*, PPn, '*Adioryx* sp.', 55
 **tage*, POc, 'excrement', 406, 408
 **taqea*, POc, '*Lutjanus* spp., snapper, sea perch', see **ta(Ra)qea*
 **tāqea*, PPn, '*Lutjanus* sp., probably *L. gibbus*', 77
 **tage-tuli*, PPn, 'phosphorescent centipede/millipede', 407
 **tarā*, PMic, 'squirrelfish', 18, 53
 **taragau*, POc, 'fish-eating eagle or hawk', 296
 **tarasea*, PCP, 'sea cucumber taxon', 205
 **tarawa*, PMic, 'barracuda', 64
 **taroa*, PNCV, 'White-throated Pigeon, *Columba vitiensis*', 318
 **taroap(v)*, PSOc, 'White-throated Pigeon, *Columba vitiensis*', 318
 **taRaqa*n, PMP, '*Holocentrus* spp., squirrelfish', 17, 53
 **taRaqa*n, POc, '*Sargocentron* spp., squirrelfish, including *S. spiniferum*', 17, 53, 145, 148
 **ta(Ra)qea*, POc, '*Lutjanus* spp., snapper, sea perch', 77
 **taRat*, PMP, '*Naso* spp., unicornfish', 102
 **taRat*, POc, '*Naso* spp., incl. *N. brevirostris*, short snouted unicornfish', 102, 147, 148
 **taRutu[m,ŋ]*, PMP, 'porcupinefish, *Diodon* sp.', 125
 **taRutu(m,ŋ)*, POc, '*Diodon* spp., porcupinefish', 125, 145, 148
 **tasiwa*, POc, '*Lutjanus* spp.', 77, 146, 148
 **tasiwa*, PCP, '*Lutjanus* sp.', 77
 **tau(p)*, POc, 'lay egg', 280
 **taup-i-*, POc, 'sit on eggs', 280
 **tautu*, PMic, 'porcupine fish', 125
 **tautu*, PPn, '*Diodon* spp., porcupine fish', 126
 **tautu*, PCP, '*Diodon* sp.', 126
 **tava*, Proto SE Solomonian, 'hawk or eagle', 299
 **tawake*, PPn, 'White-tailed Tropic-bird, *Phaethon lepturus*', 354
 **tawa-tawa*, PPn, '*Euthynnus yaito* [*E. affinis*], black tuna, or

- Gymnosarda unicolor*, juvenile, dogtooth tuna', 113
- **tawa-tawa*, PROc, 'growth stage of skipjack or dogtooth tuna', 113
- **tektek*, PMP, 'gecko, house lizard (onom.)' (doublet **cekcek*), 256
- **teqe-teqe*, PPn, 'Arothron and *Canthigaster* spp., pufferfish', 127
- **teu*, PPn, 'Carangid', 73
- **teu*, PCP, 'k.o. goatfish', 84
- **tiā(k,η)*, PNCal, 'Melanesian Graybird, *Coracina caledonica*', 341
- **tiāη*, PNCal, 'Melanesian Graybird, *Coracina caledonica*', see **tiā(k,η)*
- **tifi-tifi*, PPn, 'butterfly fish (generic)', 90
- **tiku, tuki*, PMic, 'tropic-bird', 353
- **tila*, PNCal, 'night heron, *Nycticorax* sp.', 293
- **tin[d]ap*, PMP, 'look intently', 377
- **tinebu*, PROc, 'petrel', 352
- **tio*, PPn, 'oyster sp.', 193
- **tipi-tipi*, POc, 'Chaetodontidae', 89
- **tiqaw*, PMP, 'goatfish', 84
- **tiqo*, POc, 'goatfish sp. or spp.', 84, 145, 148
- **tiro(p)*, **tirop-i-*, POc, 'look intently, look for (lice etc.)', 377
- **tiRem*, PMP, 'oyster (Ostreidae)', 193
- **tiRom*, POc, 'oyster (Ostreidae, Isognomonidae)', 193
- **tivi-tivi*, PCP, '*Chaetodon* spp.', 89
- **toa*, PFij, '*Ostracion*', 124
- **toava*, Proto North Vanuatu, 'Mackinlay's Cuckoo Dove, *Macropygia mackinlayi*', 318
- **tobaka*, PNCV, 'Fruit Dove, *Ptilinopus* sp.', 315
- **tofe*, PPn, 'k.o. bivalve', 179
- **tok, *totok*, POc, 'gecko', 256
- **toki*, PMic, 'bite, peck', 281
- **toki*, POc, 'peck' (also perhaps of fish nibbling at bait), 281
- **toloa*, PPn, 'duck', 295
- **(t,d)oloq*, POc, 'k.o. eel', 47
- **tonu*, PPn, 'rock cod, when large', 66
- **toqa*, POc, 'fowl', 285
- **toqa*, POc, 'k.o. fish with toxic flesh, probably *Ostracion*', 124
- **tōrea*, Proto Central Eastern Polynesian, 'Pacific Golden Plover, *Pluvialis fulva*', 363
- **totok*, POc, 'gecko', see **tok, *totok*
- **tū, *tū-kele*, PNPn, 'ground dove', 317
- **tū*, PPn, 'ground dove', 317
- **tuNa*, PAn, 'freshwater eel', 43
- **tuasi*, POc, 'bivalve taxon, probably ark or cockle shell; possibly also grater or spoon made from this', see **tu(qu)asi*
- **tuaōi*, PCP, 'bivalve taxon, probably ark or cockle shell; possibly also grater or spoon made from this', see **tu(qu)aōi*
- **tubaRa*, POc, 'probably generic for large land crabs, *Cardisoma* spp.', 173
- **tue, *tue-tue*, POc, 'k.o. bivalve, possibly Lucinidae and allied families', see **tu(q)e, *tu(q)e-tu(q)e*
- **tufu*, PPn, '*Thalassoma* sp.', 94
- **tukuku*, PPn, 'Pomacentridae', 91
- **tuku-tuku*, PCP, 'k.o. spider which lowers itself on a single thread', 411
- **tuli(i)*, PCP, 'Pacific Golden Plover, *Pluvialis fulva*', 361
- **tuma*, POc, 'body louse', 375
- **tumah*, PMP, 'clothes louse', 375
- **tumeS*, PAn, 'clothes louse', 375
- **tuna*, POc, 'Anguillidae, freshwater eel (generic)', 43, 144, 148
- **tuna*, PPn, '*Anguilla* spp., freshwater eel', 43
- **tuna*, PCP, 'Anguillidae, freshwater eel', 43
- **tupa*, PPn, 'landcrab', 173
- **tu(q)e, *tu(q)e-tu(q)e*, POc, 'k.o. bivalve, possibly Lucinidae and allied families', 195

- **tu(qu)asi*, POc, ‘bivalve taxon, probably ark or cockle shell; possibly also grater or spoon made from this’, 197
- **tu(qu)aōi*, PCP, ‘bivalve taxon, probably ark or cockle shell; possibly also grater or spoon made from this’, 197
- **tusi*, PCP, ‘*Acanthurus* sp.’, 107
- **tutu*, Proto North Vanuatu, ‘Baker’s Pigeon, *Ducula bakeri*’, 314
- **tuvu*, PCP, ‘Labridae sp.’, 94
- **udu*, PEOc, ‘*Leodis viridis*, palolo worm’, *see* *(*o,u*)*du*
- **udu*, PNCV, ‘Eunice, palolo worm’, 212
- **ule(o)*, PWOC, ‘Dollar Bird, *Eurystomus orientalis*’, 339
- **uvi*, PCP, ‘k.o. fish, poss. Eleotridae’, 100
- **va(o,u)*, Proto SE Solomonic, ‘Fruit Dove, *Ptilinopus* sp.’, 315
- **vaRi manu*, PEOc, ‘*Aetobatis narinari*, eagle ray’, 35
- **vasilo*, PROc, ‘honeyeater’, *see* *(*b,v*)*asilo*
- **vasua*, PEOc, ‘large shellfish, perhaps a bivalve’, *see* *(*b,v*)*asua*
- **vāsua*, PCP, ‘large shellfish, perhaps a bivalve’, *see* *(*b,v*) *āsua*
- **vau*, Proto SE Solomonic, ‘Fruit Dove, *Ptilinopus* sp.’, *see* **va(o,u)*
- **vaya*, PCP, ‘k.o. small school fish’, 38
- **vete-vete*, PNCV, ‘fantail’, 344
- **via*, PFij, ‘*Zebrasoma veliferum*’, 103
- **vili[kiki]*, Proto NW Solomonic, ‘Beach Stone-Curlew, *Burhinus neglectus*’, *see* *(*b,v*)*ili[ki(k,t)i]*
- **vili[kiti]*, Proto NW Solomonic, ‘Beach Stone-Curlew, *Burhinus neglectus*’, *see* *(*b,v*)*ili[ki(k,t)i]*
- **vilu*, PCP, ‘*Gnathanodon, Trachinotus*’, 70
- **vō*, PCP, ‘k.o. small fish’, *see* **vo(q)o*
- **vokai*, PCP, ‘k.o. lizard’, 256
- **vo(q)o*, PCP, ‘k.o. small fish’, 100
- **voto*, PCP, ‘thorn, prickle; spike or spines of a fish’, 135
- **vua-vua*, PCP, ‘k.o. small fish’, 60
- **vula*, PCP, ‘*Megalops*’, 37
- **v^weru*, PNCV, ‘Fruit Dove, *Ptilinopus* sp.’, 315
- **wagita*, PPT, ‘wallaby’, 222
- **wake*, POc, ‘k.o. lizard, possibly a monitor’, *see* **wak(i,e)*
- **wakeke~*kakawe*, PPT, ‘Sulphur-crested Cockatoo, *Cacatua galerita*’, 321
- **wak(i,e)*, POc, ‘k.o. lizard, possibly a monitor’, 254
- **wakin*, PEMP, ‘wallaby’, 222
- **wakin*, POc, ‘wallaby’, 222
- **wakio*, Proto Malaita-Makira, ‘Osprey, *Pandion haliaetus*’, 300
- **walu*, POc, ‘Scombridae sp. or spp.’, 114, 144, 148
- **walu*, PPn, ‘Scombridae’, 114
- **walu*, PCP, ‘k.o. pelagic fish’, 114
- **wana*, PPn, ‘sea urchin sp.’, 204
- **wana*, PCP, ‘sea urchin, probably *Diadema* sp. and/or *Echinothrix* spp.’, 204
- **waro(q)*, PEOc, ‘probably black-lipped pearl, *Pinctada maxima*, possibly generic for *Pinctada* spp.’, 194
- **wase*, PSOC, ‘Island Thrush, *Turdus poliocephalus*’, *see* **was(i,e)*
- **was(i,e)*, PSOC, ‘Island Thrush, *Turdus poliocephalus*’, 342
- **watiRi*, PAdm, ‘monitor lizard, *Varanus* spp.’, 255
- **wāwā*, PPn, ‘orthopterous insect’, 397
- **weka*, PCP, ‘Buff-banded Rail, *Rallus philippensis*’, 309
- **weli*, POc, (1) ‘fireworm, sea centipede’, (2) ‘? k.o. millipede or centipede’, 211
- **weli*, PPn, (1) ‘centipede’, (2) ‘marine annelid like a centipede’, 211
- **wete*, PPn, ‘k.o. goatfish, including *Mulloidichthys*’, 85
- **wisi*, PEOc, ‘owl’, 333

**woku*, POc, ‘Cuckoo Dove, *Macropygia*
sp.’, 317

*(y)*aro(q)*, POc, ‘black-lipped pearl,
Pinctada maxima’, possibly
generic for *Pinctada* spp., 194

Index of English and biological terms

This index is organised by the domains covered by chapters 2–3, 4, 5, 6 and 7 in this volume, but arranged here in alphabetical order: Aquatic invertebrates, Birds, Fish, Insects and other creepy-crawlies, Mammals, reptiles and amphibians. Within each domain are listed English and biological terms in alphabetical order. Index entries to chapter 8 are included as appropriate within these five domains.

Aquatic invertebrates

- anemones, 207, 209
- Annelida, worms, 210
- Anomura, hermit crabs, mud lobsters, half-crabs, 168
- Anodontia*, bivalve, 195
- Anthozoa, anemones and corals, 207
- armlet, shell, 187
- Asaphis* spp., circular bivalves, 190
- Asteroidea, sea stars, 206
- Astropyga* spp., long-spined sea urchins, 203
- barnacles, 179
- Birgus latro*, coconut crab, 168
- bivalves, 188
 - circular, 190
- Bivalvia, clams, cockles, oysters, 188
- black-lip pearl shell, 193
- Brachyura, true crabs, 171
- burrowing crabs, 174
- bêche de mer, 204
- Cardiidae, cockles, 190
- Cardisoma* spp., land crabs, 173
- Cassis* spp., helmet shells, 183
- Cephalopoda, octopus, squid, nautilus, 198
- Cephalopoda, squid and cuttlefish, 199
- Charonia tritonis*, triton's trumpet, 183
- chitons, 197
- circular bivalves, 190
- Cirripedia
 - Thoracia, barnacles, 179
- clams, 188
- Cnidaria, anemones, corals, jellyfish and hydroids, 207
- cockles, 188, 190
- coconut crab, 168
- Codakia*, bivalve, 195
- Coelenterata, *see* Cnidaria
- Coenobitidae, hermit crabs, 168
- conches, 181
- cone shells, 187
- Conidae, cone shells, 187
- corals, 207–209
- cowries, 185
 - egg, 185
 - spindle, 185
- crabs, 171
 - burrowing, 174
 - coconut, 168
 - fiddler, 176
 - ghost, 176
 - hermit, 168, 170, 171
 - large land, 173
 - long-stalked, 176
 - mangrove, 172
 - mud, 174

- porcelain, 171
- sand, 176
- sea-dwelling hermit, 168
- shore, 174
- soldier, 176
- swimming, 172
- true, 171
- crabs (generic), 178
- crayfish, 165
- crustacean roe, 180
- Ctena*, bivalve, 195
- Ctenophora, comb jellyfish, 207, 209
- Culcita* spp., cushion stars, 206
- cushion stars, 206
- cuttlefish, 199
- Cymatiidae, tritons, 183
- Cypraeidae, cowries, 185
- Diadema* spp., long-spined sea urchins, 203
- Diogenidae, sea-dwelling hermit crabs, 168
- Echinodermata, sea urchins, sea cucumbers, starfish, etc., 202
- Echinoidea, sea urchins, 202
- Echinometra* spp., rock-boring sea urchins, 202
- Echinothrix* spp., long-spined sea urchins, 203
- edible sea invertebrates (generic), 162, 421, 437–439, 452
- egg cowries, 185
- Eunice viridis*, palolo worm, 212
- fiddler crabs, 176
- fireworms, 211
- Gastropoda, univalves, 181
- gastropods, 188
- gastropods, edible (generic), 184, 421, 439–441, 443, 452
- gather seafood on the reef, 162
- ghost crabs, 176
- giant clams, 189
- gold-lip pearl shell, 193
- Grapsidae, shore crabs, burrowing crabs of mud flats, 174
- grapsids
 - mangrove, 174
- half-crabs, 168, 171
- hammer oysters, 193
- helmet shells, 183
- hermit crabs, 168, 170, 171
 - sea-dwelling, 168
- holothurians, 204
- Holothuroidea, sea cucumbers, 204
- Hydrozoa, hydroids, polyps, 207, 209
- ink of octopus, 201
- Isognomonidae, mangrove oysters, 192
- jellyfish, 207, 209
 - Portuguese man o' war, 209
- Lambis* spp., spider conches, 181
- land crabs, 173
- lobsters, 165
 - mud, 168, 171
 - shovel-nosed, 167
 - slipper, 167
 - spiny, 166
- Loligo* spp., squid, 199
- long-spined sea urchins, 203
- long-stalked crab, 176
- Loriges*, bivalve, 195
- Lucina*, bivalve, 195
- Lucinidae, bivalves, 195
- Lucinisca*, bivalve, 195
- Lucinoidea, bivalves, 195
- Malleidae, hammer oysters, 192, 193
- mangrove crabs, 172
- mangrove grapsids, 174
- mantis shrimps, 179
- molluscs, 180
- mud lobsters, 168, 171
- mudcrab, 174
- murexes, 188
- Muricidae, murexes, 188
- mussels, 192
- Mytilidae, mussels, 192
- Natantia, true prawns and shrimps, 168
- nerites, 184
- Neritidae, nerites, snail-like gastropods, 184
- octopus, 198
 - common reef, 198

- day, 198
- night, 198
- Octopus cyanea*, day octopus,
 - common reef octopus, 198
- octopus ink, 201
- Octopus oinatus*, night octopus, 198
- octopus tentacles, 201
- Ocypoda* sp., ghost crabs, 176
- Ocypodidae long-stalked crabs (ghost crabs fiddler crabs soldier crabs), 176
- Ophiuroidea, starfish, 206
- Ostreidae, rock oysters, 192
- Ovulidae, egg and spindle cowries, 185
- oysters, 188, 192
 - hammer, 193
 - pearl, 193
 - wing, 193
- Paguridae, hermit and coconut crabs, 168
- Palinura, spiny lobsters, 166
- Palinuridae, spiny lobsters, 167
- Palinurus*, spiny lobster, 166
- palolo worm, 212
- Parribacus* sp., slipper lobster, 167
- pearl oysters, 193
- pearl shell
 - black-lip, 193
 - gold-lip, 193
- pen shells, 195
- Physalis* sp., Portuguese man o' war, 209
- Pinctada margaritifera*, black-lip
 - pearl shell, 193
- Pinctada maxima*, gold-lip
 - pearl shell, 193
- Pinnidae, pen shells, 195
- Polychaeta, fireworms, 211
- Polyplacophora, chitons, 197
- porcelain crabs (half-crabs), 171
- Porcellanidae, porcelain crabs (half-crabs), 171
- Poriphera, sponges, 212
- Portuguese man o' war, 209
- Portunidae, mangrove crabs, 172
- prawns, 165
- prawns and shrimps, 168
- prawns and shrimps, crayfish and lobsters (generic), 165
- Psammobidae, 190
- Pteridae, pearl and wing oysters, 192, 193
- rock oysters, 192
- rock-boring sea urchins, 202
- roe of crustacean, 179
- sand crabs, 176
- sandworm, 210
- scraper made from circular bivalve shell, 190, 192
- Scylla serrata*, mangrove crab, 172
- Scyllaridae, slipper lobsters, 167
- Scyphozoa, jellyfish, 207, 209
- sea cucumbers, 204
- sea stars, 206
- sea urchins, 202
 - long-spined, 203
 - rock-boring, 202
- sea-dwelling hermit crabs, 168
- seafood gathered on the reef (generic), 162, 421, 437–439, 452
- Sepia* spp., cuttlefish, 199
- Sesarma* spp., mangrove grapsids, 174
- shell armlet, 187
- shellfish (generic), 198
- shells
 - bivalves, 188
 - cockles, 190
 - conch, 181
 - cone, 187
 - cowrie, 185
 - murex, 188
 - nerite, 184
 - pen, 195
 - spider, 181
 - stromb, 181
 - triton, 183
 - trochus, 186
 - turban, 182
- shore crabs, 174
- shovel-nosed lobsters, 167

shrimps, 165, 168
Sipunculus sp., sandworm, 210
 slipper lobsters, 167
 soldier crabs, 176
 spider conches, 181
 spindle cowries, 185
 spiny lobsters, 166, 167
 Spondylidae, thorny oysters, 192
 sponges, 212
 squids, 199
 starfish, 206
 Stomatopoda, mantis shrimps, 179
 Strombidae, strombs, spiders,
 conches, 181
 strombs, 181
 swimming crabs, 172
 tapestry turban shell, 182
 tentacles of octopus, 201
Thalassina, mud lobsters, 171
 Thoracia, barnacles, 179
 top shells, 186
 trepang, 204
Tridacna gigas, giant clam, 189
 Tridacninae, giant clams, 189
 tritons, 183
 triton's trumpet, 183
 Trochidae, top shells, 186
 trochus shells, 186
Trochus spp., trochus shells, 186
 true crabs, 171
 turban shells, 182
 Turbinidae, turban shells, 182
Turbo petholatus, tapestry turban, 182
 univalves, 181
 wing oysters, 193
 worms, 210
 Xanthoidea, crabs of coral reefs, 178

Birds

Accipiter, goshawks, 296, 302
 Accipitridae, diurnal raptors, 296
Aceros plicatus, Blyth's Hornbill, 339
Aerodramus spodiopygius,
 White-rumped Swiftlet, 333
Aerodramus vanikorensis, Uniform
 Swiftlet, Vanikoro Swift, 237,
 333

albatrosses, 352
 Alcedinidae, kingfishers, 336
Alcedo, kingfishers, 336
Amaurornis olivaceus, Rufous-tailed
 Moorhen, 307
Anas gibberifrons, Grey Teal, 293
Anas platyrhynchos, Mallard, 293
Anas superciliosa, Pacific Black
 Duck, 293
 Anatidae, ducks, 293
 animal (generic), 271, 416, 421, 443,
 444, 446, 447, 449, 452
Anous, noddies, 365
Anous minutus, White-capped Noddy,
 369
Anous stolidus, Common Noddy, 369
Aplonis, starlings, 348
Aplonis metallica, Shining Starling,
 348
Aplonis tabuensis, Striped Starling,
 349
 Apodidae, swifts, 333
 Ardeidae, herons, 288
Arenaria interpres, Ruddy Turnstone,
 359
 Artamidae, wood swallows, 349
Artamus insignis, Bismarck Wood
 Swallow, 349
Artamus leucorhynchus,
 White-breasted Wood Swallow,
 349
 Australian Crow, 350
Aviceda subcristata, Crested Baza,
 296, 300
 Baker's Pigeon, 314
 Bare-eyed Rail, 307
 Barn Owls, 235, 330, 331, 333
 New Britain, 330
 Bar-tailed Godwit, 359
 Baza, Crested, 296, 300
 Beach Stone-Curlew, 364
 beak, 277
 bird, parts of
 beak, 277
 claw, 278
 egg, 278, 279

- feathers, 273, 274
- nest, 279, 280
- tail, 267, 277
- tail feathers, 274
- wings, 275, 276
- bird (generic), 271, 416, 421, 443, 444, 446, 447, 449, 452
- Bismarck Scrub Fowl, 304–306
- Bismarck Wood Swallow, 349
- bitterns, 288
- Black Duck, Pacific, 293
- Black Honey Buzzard, 296
- Black-naped Tern, 369
- Blue Quail, Indian, 306
- Blue-eyed Cockatoo, 320
- Blue-faced Booby, 355
- Blyth's Hornbill, 339
- Boobies, 355–357
 - Blue-faced, 355
 - Brown, 355, 356
 - Red-footed, 355, 356
- Brahminy Kite, 296
- Bristle-thighed Curlew, 359
- Brown Booby, 355, 356
- Bucerotidae, hornbills, 339
- Buff-banded Rail, 307–309
- Burhinidae, waders, 359
- Burhinus neglectus*, Beach Stone-Curlew, 364
- Butorides striatus*, Green-backed Heron, 288
- Buzzard, Black Honey, 296
- Cacatua galerita*, Sulphur-crested Cockatoo, 321
- Cacatua ophthalmica*, Blue-eyed Cockatoo, 320
- Cacatuidae, parrots, 320
- Cacomantis*, cuckoos, 329
- Caloenas nicobarica*, Nicobar Pigeon, 310
- Campephagidae, trillers, 341
- Cardinal Lory, 320, 324, 325
- cassowaries, 287
- Casuariidae, cassowaries, 287
- Casuaris bennetti*, Dwarf Cassowary, 287
- Centropus*, Coucals, 329
- Ceyx*, kingfishers, 336
- Chalcites*, cuckoos, 329
- Chalcophaps*, pigeons, 310
- Chalcophaps indica*, Emerald Dove, 316
- Chalcopsitta cardinalis*, Cardinal Lory, 320, 324, 325
- Charadriidae, waders, 359
- Charmosyna*, Lorikeets, 320
- Circus approximans*, Pacific Marsh Harrier, 302–304
- claw, 278
- cockatoos, 321
 - Blue-eyed, 320
 - Sulphur-crested, 321
 - white, 321
- Collared Lory, 328
- Collocalia esculenta*, White-bellied Swiftlet, 333
- Columba*, pigeons, 310
- Columba vitiensis*, White-throated Pigeon, 318
- Columbidae, pigeons, 310
- Common Noddy, 369
- Coraciidae, rollers, 339
- Coracina*, cuckoo-shrikes, 341, 342
- Coracina caledonica*, Melanesian Graybird, 341
- Coracina lineata*, Lineated Cuckoo Shrike, 339
- Corvidae, crows, 350
- Corvus moneduloides*, New Caledonian Crow, 351
- Corvus orru*, Australian Crow, 350
- Coturnix chinensis*, Indian Blue Quail, 306
- Coucals, 329
- Crakes
 - Red-necked, 307
 - Sooty, 309
- Crested Baza, 296, 300
- crows, 350, 351
 - Australian, 350
 - New Caledonian, 351
- Cuckoo Dove

- Mackinlay's, 318
- Cuckoo Shrike
 - Lineated, 339
- cuckoos, 329, 330
- cuckoo-shrikes, 341, 342
- Cuculidae, cuckoos, 329
- Cuculus*, cuckoos, 329
- Curlews
 - Bristle-thighed, 359
 - stone-, 364
- Dendrocygna*, Whistling Ducks, 293
- diurnal raptors, 296
- Dollar Bird, 339
- domestic bird, the, 283
- doves, 310, 316
 - Emerald, 316
 - Fruit, 310, 315
 - Mackinlay's Cuckoo, 318
- ducks, 293–295
 - Pacific Black, 293
 - Whistling, 293
- Ducula*, Imperial Pigeons, 310, 312
- Ducula*, pigeons, doves, 311–313
- Ducula bakeri*, Baker's Pigeon, 314
- Ducula pacifica*, Pacific Pigeon, 314
- Dwarf Cassowary, 287
- eagles, 296–302
 - sea, 297, 298
 - White-bellied Sea, 297, 299
- Eclectus Parrot, 320, 321
 - female, 323
 - male, 322
- Eclectus roratus*, Eclectus Parrot,
 - 320, 321
 - female, 323
 - male, 322
- eggs, 278, 279
 - lay, 280
 - sit on, 280
- egrets, 288–292
- Egretta*, herons, egrets, 288–292
- Emerald Dove, 316
- Eulabeornis plumbeiventris*,
 - Bare-eyed Rail, 307
- Eurystomus orientalis*, Dollar Bird,
 - 339
- Falco peregrinus*, Peregrine Falcon,
 - 296
- Falco severus*, Oriental Hobby, 296
- Falconidae, diurnal raptors, 296
- falcons, 304
 - Peregrine, 296
- Fantails, 343, 344
- feathers, 273, 274
 - tail, 274
- Fish-eating raptors, 296
- flap wings, 275
- fly (v), 280
- flycatchers, 343, 345
- flying creature (generic), 271, 416,
 - 421, 443, 444, 446, 447, 449, 452
- fowl, 283, 284, 286
 - Bismarck Scrub, 304–306
 - Red Jungle, 283
 - scrub, 304
- Fregata ariel*, Lesser Frigate Bird,
 - 357
- Fregata minor*, Great Frigate Bird,
 - 357
- Fregatidae, frigate birds, 357
- Friarbirds
 - New Britain, 346
- frigate birds, 357–359
 - Great, 357
 - Lesser, 357
- Fruit Doves, 310, 315
- Gallicolumba*, pigeons, 310
- Gallus gallus*, Red Jungle Fowl, 283,
 - 284
- Geoffroyus heteroclitus*, Singing
 - Parrot, 320, 327
- Gilliard's Honeyeater, 346
- glide, 281
- Godwit, Bar-tailed, 359
- Golden Plover
 - Pacific, 361, 363
- Golden Plover, Pacific, 359
- Golden Whistler, 345
- Graybird, Melanesian, 341
- Great Frigate Bird, 357
- Green-backed Heron, 288
- Grey Teal, 293

- Gygis alba*, White Tern, 365, 366
Gymnophaps, pigeons, 310
Halcyon, kingfishers, 336
Halcyon chloris, White-collared Kingfisher, 336
Halcyon sancta, Sacred Kingfisher, 336
Halcyon saurophaga, White-headed Kingfisher, 336
Haliaeetus, fish-eating raptors, 296
Haliaeetus leucogaster, White-bellied Sea Eagle, 296, 297, 299
Haliastur, fish-eating raptors, 296
Haliastur indus, Brahminy Kite, 296
Hanging Parrot, Orange-fronted, 320
Harrier, Pacific Marsh, 302–304
Hawk Owl, Islands Solomon, 330
hawks, 296, 300–302, 304
Hemiprocne mystacea, Whiskered Tree-swift, 333
Hemiprocidae, treeswifts, 333
hen, 287
Henicopernis infuscata, Black Honey Buzzard, 296
Henicophaps, pigeons, 310
herons, 288–292
 Green-backed, 288
 Nankeen Night, 293
 Night, 293
Heteroscelus incanus, Wandering Tattler, 359, 361
Hirundinidae, swallows, 333
Hirundo tahitica, Pacific Swallow, 333
Hobby, Oriental, 296
Honey Buzzard, Black, 296
honeyeaters, 346, 347
 Gilliard's, 346
Hornbill, Blyth's, 339
hornbills, 339, 340
Hydrobatidae, petrels, 352
Imperial Pigeons, 310, 312
Indian Blue Quail, 306
Island Thrush, 342
Ixobrychus, bitterns, 288
kingfishers, 336, 338
 Sacred, 336
 White-collared, 336
 White-headed, 336
 White-tailed, 336
kites, 304
 Brahminy, 296
Koel, Long-tailed, 329
Lalage, trillers, 341
Lalage maculosa, Spotted Triller, 341
Laridae, terns, 365
lay eggs, 280
Lesser Frigate Bird, 357
Limosa lapponica, Bar-tailed Godwit, 359
Lineated Cuckoo Shrike, 339
Long-tailed Koel, 329
Loriculus aurantiifrons,
 Orange-fronted Hanging Parrot, 320
Lories
 Cardinal, 320, 324, 325
 Collared, 328
 Purple-bellied, 320
 Rainbow, 320, 324
Loriidae, parrots, 320
Lorius hypoinochrous, Purple-bellied Lory, 320
Mackinlay's Cuckoo Dove, 318
Macropygia, pigeons, 310
Macropygia mackinlayi, Mackinlay's Cuckoo Dove, 318
Mallard, 293
Marsh Harrier
 Pacific, 302–304
Megapodes, 304, 306
Megapodiidae, megapodes, 304
Megapodius, megapodes, scrub fowl, 304
Megapodius eremita, Bismarck Scrub Fowl, 304–306
Melanesian Graybird, 341
Melidectes whitemanensis, Gilliard's Honeyeater, 346
Meliphagidae, honeyeaters, 346
Micropsitta, Pygmy Parrots, 320

- Mino dumontii*, Yellow-faced Mynah, 348, 349
Monarcha, flycatchers, 343
 Monarchidae, flycatchers, 343, 345
 Moorhen, Rufous-tailed, 307
Myiagra, flycatchers, 343
 Mynah, Yellow-faced, 348, 349
Myzomela, honeyeaters, 346, 347
 Nankeen Night Heron, 288, 293
 nest, 279, 280
 New Britain Barn Owl, 330
 New Britain Friarbird, 346
 New Caledonian Crow, 351
 Nicobar Pigeon, 310
 Night Heron, 293
 Night Heron, Nankeen, 288, 293
Ninox, Hawk Owls, 330
Ninox jacquinoti, Solomon Islands Hawk Owl, 330
 noddies, 365, 369
 Common, 369
 White-capped, 369
Numenius, curlews, 362
Numenius phaeopus, Whimbrel, 359
Numenius tahitiensis, Bristle-thighed Curlew, 359
Nycticorax, Night Heron, 293
Nycticorax caledonicus, Nankeen Night Heron, 288, 293
 Orange-fronted Hanging Parrot, 320
 Oriental Hobby, 296
 Osprey, 296, 299, 300
 Owls, 330–333
 Barn, 235, 330, 331, 333
 Hawk, 330
 New Britain Barn, 330
 Typical, 330
Pachycephala pectoralis, Golden Whistler, 345
 Pachycephalidae, whistlers, 345
 Pacific Black Duck, 293
 Pacific Golden Plover, 359, 363
 Pacific Marsh Harrier, 302–304
 Pacific Pigeon, 314
 Pacific Swallow, 333
Pandion, fish-eating raptors, 296
Pandion haliaetus, Osprey, 296, 299, 300
 Pandionidae, diurnal raptors, 296
 parrots, 320–328
 Eclectus, 320, 321, 323
 Orange-fronted Hanging, 320
 Pygmy, 320
 Singing, 320, 327
 peck, 281
 Peregrine Falcon, 296
 petrels, 352, 353
Phaethon, tropic-bird, 353
Phaethon lepturus, White-tailed Tropic Bird, 353, 354
Phaethon rubricauda, Red-tailed Tropic Bird, 353
 Phaethontidae, tropic-birds, 353
 Phasianidae, pheasants, 306
 pheasants, 306
Phigys solitarius, Collared Lory, 328
Philemon cockerelli, New Britain Friarbird, 346
 pigeons, 310–313, 316, 319, 320
 Baker's, 314
 ground-feeding, 316
 Imperial, 310, 312
 Nicobar, 310
 Pacific, 314
 White-throated, 318
 plovers, 363
 Pacific Golden, 359, 361, 363
Pluvialis, plovers, 359, 361, 362
Pluvialis fulva, Pacific Golden Plover, 359, 361, 363
Porphyrio porphyrio, Purple Swamphen, 307, 308
Porzana cinerea, White-browed Rail, 307
Porzana tabuensis, Sooty Crake, 309
 Procellariidae, petrels, 352
 Psittacidae, parrots, 320
Ptilinopus, Fruit Doves, 310, 315
Puffinus pacificus, Wedge-tailed Shearwater, 352
 Purple Swamphen, 307, 308
 Purple-bellied Lory, 320

- Pygmy Parrots, 320
- Quail, Indian Blue, 306
- rails, 307, 309
 - Bare-eyed, 307
 - Buff-banded, 307–309
 - White-browed, 307
- Rainbow Lory, 320, 324
- Rallidae, rails, 307
- Rallina tricolor*, Red-necked Crake, 307
- Rallus philippensis*, Buff-banded Rail, 307–309
- raptors
 - diurnal, 296
 - fish-eating, 296–299
- Red Jungle Fowl, 283
- Red-footed Booby, 355, 356
- Red-necked Crake, 307
- Red-tailed Tropic Bird, 353
- Reinwardtoena*, pigeons, 310
- Rhipidura*, fantails, 343, 344
- Rhipidura leucophrys*, Willie Wagtail, 344
- Rhipiduridae, fantailsfantails, 343
- rollers, 339
- Ruddy Turnstone, 359
- Rufous-tailed Moorhen, 307
- Sacred Kingfisher, 336
- sandpipers, 360, 361, 363
- Scolopacidae, sandpipers, 359
- scrub fowl, 304
 - Bismarck, 304–306
- Scythrops*, cuckoos, 329
- Sea Eagle
 - White-bellied, 296, 297, 299
- sea eagles, 297, 298
- seagulls, *see* terns
- Shearwaters
 - Wedge-tailed, 352
- Shining Starling, 348
- Shrikes, Lineated Cuckoo, 339
- Singing Parrot, 320, 327
- sit on eggs, 280
- soar, 281
- Solomon Islands Hawk Owl, 330
- Sooty Crake, 309
- Spotted Triller, 341
- starlings, 348
 - Shining, 348
 - Striped, 349
- Sterna*, terns, 365
- Sterna sumatrana*, Black-naped Tern, 369
- Stone-Curlew, Beach, 364
- Strigidae, Typical Owls, 330
- Striped Starling, 349
- Sturnidae, starlings, 348
- Sula*, Boobies, 355, 356
- Sula dactylatra*, Blue-faced Booby, 355
- Sula leucogaster*, Brown Booby, 355, 356
- Sula sula*, Red-footed Booby, 355, 356
- Sulidae, Boobies, 355
- Sulphur-crested Cockatoo, 321
- swallows, 333
 - Bismarck Wood, 349
 - Pacific, 333
 - Wood, 349
- Swamphen, Purple, 307, 308
- Swamphens
 - Purple, 307
- swiftlets, 333, 335
 - Uniform, 237, 333
 - White-bellied, 333
 - White-rumped, 333
- swifts, 333
- tail, 267, 277
- tail feathers, 274
- Tanysiptera sylvia*, White-tailed Kingfisher, 336
- Tattler, Wandering, 359, 361
- Teals, Grey, 293
- terns, 365–369
 - Black-naped, 369
 - White, 365, 366
- Thalasseus*, terns, 365
- Thrush, Island, 342
- thrushes, 342
- Tree-swift, Whiskered, 333

Trichoglossus haematodus, Rainbow Lory, 320, 324
 trillers, 341
 Spotted, 341
 Tropic Birds
 Red-tailed, 353
 White-tailed, 353, 354
 tropic-birds, 353, 354
 Turdidae, thrushes, 342
Turdus poliocephalus, Island Thrush, 342
 Turnstone, Ruddy, 359
 Typical Owls, 330
Tyto alba, Barn Owl, 235, 330, 331, 333
Tyto aurantia, New Britain Barn Owl, 330
 Tytonidae, Barn Owls, 330
 Tytonidaeowls, 330
 Uniform Swiftlet, 237, 333
Urodynamis, cuckoos, 329
Urodynamis taitensis, Long-tailed Koel, 329
 Vanikoro Swift, 237, 333
Vini, Lorikeets, 320
 waders, 359–364
 Wagtail, Willie, 344
 Wandering Tattler, 359
 Wedge-tailed Shearwater, 352
 Whimbrel, 359
 Whiskered Tree-swift, 333
 whistlers, 345
 Golden, 345
 Whistling Ducks, 293
 White Tern, 365, 366
 White-bellied Sea Eagle, 296, 297, 299
 White-bellied Swiftlet, 333
 White-browed Rail, 307
 White-capped Noddy, 369
 White-collared Kingfisher, 336
 White-eye, White-throated
 White-eye, 345
 White-headed Kingfisher, 336
 White-rumped Swiftlet, 333
 White-tailed Kingfisher, 336

White-tailed Tropic Bird, 353, 354
 White-throated Pigeon, 318
 White-throated White-eye, 345
 whiteyes, 345
 Willie Wagtail, 344
 wings, 275, 276
 flap (v), 275
 Wood Swallow
 Bismarck, 349
 wood swallows, 349
 White-breasted, 349
 Yellow-faced Mynah, 348, 349
 Zosteropidae, whiteyes, 345
Zosterops meeki, White-throated White-eye, 345

Fish

Abudefduf, sergeant-majors, 90
Acanthocybium solandri, wahoo, 113, 116, 144
 Acanthuridae, Unicornfishes, surgeonfishes, bristletooths, tangs, 101
Acanthurus, surgeonfishes, 104, 106, 146, 147
Acanthurus guttatus, white-spotted surgeonfish, 104
Acanthurus lineatus, blue-lined surgeonfish, 103
Acanthurus triostegus, convict tang, 107
Acanthurus xanthopterus, yellowfin surgeonfish, 103
Adioryx, 55
Aetobatus narinari, spotted eagle ray, 35, 147
 albacores, 111
Albula, bonefish, 36
 Albulidae, bonefishes, 36
Alectis indicus, plumed trevally or mirrorfish, 73
 anchovies, 37, 38, 147
 anemonefishes, 90
 angelfishes, 90
 Anguillidae, freshwater eels, 43
 Anguillidae, freshwater eels (generic), 43, 144

- Anguilliformes, eels, 43
- Apogonidae, cardinalfishes, 68
- Aprion virescens*, green jobfish, 75
- Arothron*, pufferfish and porcupinefish, 127
- Atherinidae, silversides, hardyheads, 60
- Aulostomidae, trumpetfishes, 55
- Balistes*, triggerfishes, 122, 123, 147
- Balistidae, triggerfishes, 120, 121, 145
- balloonfishes, 125
- barb of stingray, 135
- barracuda
 - great, 144
- barracudas, 61–63, 144
 - great, 61
- barramundis, 64
- basses, 74
 - sand, 64
- batfishes, 88, 145
 - silver, 88
- Belonidae, needlefishes and long toms, 49, 144
- big-eyed scad, 69, 145
- bigeyes, 67
- blennies, 99
- Blenniidae, 99
- blowfishes, 125
- blue-lined surgeonfish, 103
- Bolbometopon*, double-headed parrotfish, 96
- bonefishes, 36
- bonito, 112, 148
- Bothidae, left-eye flounders, 117
- boxfishes, 123
- breams, 79
 - butterfly, 79
 - large-eyed, 81
 - monocle, 79
 - sea, 79
 - threadfin, 79
- bristletooths, 101
- bullseyes, 67
- butterfly breams, 79
- butterflyfishes, 89, 145
- Caesionidae, fusiliers, 74
- Carangidae, jacks, trevallies, scads, horse mackerels, kingfishes, darts, rainbow runners, leatherskins, 68
- carangids, 68, 73
- Caranx*, trevallies, 69, 73, 145
- Caranx ignobilis*, big-headed jack, 145
- Carcharhinidae, sharks, 29
- Carcharhinus* sp., large shark, 32
- cardinalfishes, 68
- catfish, 42
- catfishes, 42, 147
 - striped eel, 42
- Centriscidae, razorfishes, 57
- Centropomidae, sand basses, giant perches, barramundis, 64
- Cephalopholis*, rock cod, 64, 66, 146
- Cephalopholis argus*, peacock rock cod, 67
- Chaetodontidae, butterflyfishes, coralfishes, 89
- Chaetodontidae, coralfishes and butterflyfishes, 89, 145
- Chanidae, milkfishes, 40
- Chanos chanos*, milkfish, 41, 144, 160
- Cheilinus*, Maori wrasses, 92, 93, 147
- Cheilinus* spp., Maori wrasse, 93
- Cheilinus undulatus*, double-headed Maori wrasse, 92, 147
- Cheilinus undulatus*, double-headed Maori wrasse and possibly other wrasse spp., 160
- Cirrhitidae, hawkfishes, 91
- Clupeidae, sardines and herrings, 37
- cod
 - coral, 64
 - reef, 64
 - rock, 64, 65, 145, 146
- congers, 45
- Congridae, congers, 45
- convict tang, 107
- coral cods, 64
- coralfishes, 89, 145

- cornetfishes, 55
- Coryphaena hippurus*, dolphinfish, 73, 146
- Coryphaenidae, dolphinfishes, 73
- cowfishes, 123
- Ctenochaetus*, k.o. surgeonfish, 105
- Dactylopteridae, flying gurnards, 128
- damsel-fishes, 90
- darts, 68
- Dasyatidae, stingrays, 34
- demoiselles, 90
- diamondfishes, 88
- Diodon*, porcupinefish, 125, 145
- Diodontidae, porcupinefishes and balloonfishes, 125
- dolphinfishes, 73, 146
- dolphins, 245
- dorsal fin, 134
- double-headed Maori wrasse, 92, 147
- drummers, 87
- dugong, 246
- eagle rays, 34, 35, 147
 - spotted, 35, 147
- Echeneididae, remoras, 128
- Echeneis naucrates*, suckerfish, 128
- eels, 43
 - conger, 45
 - freshwater, 43, 144
 - moray, 44, 146
 - pike, 45
 - sea (generic), 46
 - snake, 46
- eggs of fish, 129
- Eleotridae, sleepers, gudgeons, 100
- Elopidae, tarpons, 36
- emperors, 76, 81, 144
- Engraulidae, anchovies, 37
- Ephippidae, batfishes, 88
- Epinephelus*, groupers, rock cod, 64, 65, 67, 145, 146
- Epinephelus lanceolatus*, Queensland grouper, 64, 145
- Exocoetidae, flying fishes, 48, 147
- filefishes, 120
- fins
 - dorsal, 134
 - pectoral, 132, 133
- fins of fish, 132
- fish, parts of
 - fins, 132
 - gills, 129
 - gullet, 134
 - roe, 129
 - scales, 131, 268
 - stingray barb, 135
- fish eggs, 129
- fish (generic), 28, 144, 148, 150, 421, 428–430, 432–434, 436, 437, 452
- fishscale, 131
- Fistularia*, flutefish, flutemouth, 52, 56
- Fistulariidae, cornetfishes and flutemouths, 55
- flagtails, 67
- Flammeo*, soldierfish, 53
- flatfish, 118
- flatheads, 100
- flounders
 - left-eye, 117
 - right-eye, 117
 - toothed, 117
- flutemouths, 55
- flying fishes, 48, 147
- flying gurnards, 128
- freshwater eels, 43
- fusiliers, 74
- garfish and needlefish taxon, 147
- garfishes, 49–51, 144, 147
- Gempylidae, snake mackerels, oilfishes, 110
- Gerreidae, mojarras, silver biddies, 79
- Gerres*, silver biddy, 79
- giant perches, 64
- gills, 129, 130
- gills of fish, 129
- goatfishes, 84, 86, 145
- Gobiidae, 99
- gold-spotted spinefoot, 108
- great barracuda, 61, 144
- green jobfish, 75
- grey mullet, 58, 145
- groupers, 64, 65, 67, 145, 146

- Queensland, 64, 145
- grubfishes, 99
- grunters, 80
- gudgeons, 100
- Gymnothorax*, moray eel, 45
- Haemulidae, sweetlips, javelinfishes, 80
- half beaks, 49
- hammerhead shark, 33
- hardyheads, 60
- hawkfishes, 91
- Hemiramphidae, half beaks and garfishes, 49
- Hemiramphus*, garfishes, halfbeaks, 49, 50
- Hippocampus* sp., seahorse, 56
- Hipposcarus longiceps*, long-nosed parrotfish, 95, 146
- Holocentridae, squirrelfishes, soldierfishes, 53
- Holocentrus*, *see* *Sargocentron*
- horse mackerels, 68
- Istiophoridae, 116, 117
- Istiophorus platypterus*, sailfish, 116, 144
- jacks, 68
- javelinfishes, 80
- jobfish, green, 75
- jobfishes, 74
- juvenile mullet, 60
- Katsuwonus pelamis*, skipjack tuna, 112, 148, 150, 160
- kingfishes, 68
- Kuhliidae, flagtails, 67
- Kyphosidae, drummers, rudderfishes, 87
- Kyphosus*, rudderfish, 87
- Labridae*, wrasse, 95
- Labridae*, wrasses, tuskfishes, 92, 94
- large emperor, *Lethrinus* sp., 146
- large wrasse, including *Cheilinus* sp., 147
- large-eyed breams, 81
- Latidae, *see* Centropomidae
- leatherjackets, 120, 121, 145
- leatherskins, 68
- left-eye flounders, 117
- Leiognathidae, ponyfishes, slimys, 74
- Lethrinidae, emperors and large-eyed breams, 81
- Lethrinus*, emperors, 76, 83, 144
- Lethrinus elongatus*, 83
- lizardfishes, 41
- long toms, 49, 50, 144
- long-nosed parrotfish, 95, 146
- long-snouted unicornfish, 101, 146
- Lutjanidae, snappers or sea-perch, basses, jobfishes, 74
- Lutjanus*, snappers, 76–78, 144, 146
- Lutjanus kasmira*, 78
- Lutjanus monostigma*, 78
- mackerels, 111
 - horse, 68
 - snake, 110
 - Spanish, 111
- manta rays, 34
- Maori wrasses, 92, 93, 147
- Maori wrasses, double-headed, 92, 147
- marlins, 116
- Megalopidae, *see* Elopidae
- milkfishes, 40
- Mobulidae, manta rays, 34
- mojarras, 79
- Monacanthidae, filefishes and leatherjackets, 120
- Monacanthidae, leatherjackets, 121, 145
- monocle breams, 79
- Monodactylidae, silver batfishes, diamondfishes, 88
- Monotaxis grandoculis*, large-eyed sea bream, 83
- moorish idols, 100
- morays, moray eels, 44, 146
- mudskippers, 99
- Mugilidae, mullets, 57
- Mugiloididae, 99
- mullet (generic), 147
- mullets, 57, 58, 145
 - grey, 58, 145
 - juvenile, 60

- Mullidae, goatfishes, 84, 86
Mulloides sp., goatfish, 86
 Muraenesocidae, pike eels, 45
 Muraenidae, moray eels, 44
 Myliobatidae, eagle rays, 34, 35, 147
Myripristis, squirrelfish, 53, 54
 narrow-barred Spanish mackerel, 113, 144
Naso, unicornfishes, 88, 106, 145, 146
Naso brevirostris, short-snouted unicornfish, 102, 147
Naso unicornis, long-snouted unicornfish, 101, 146, 160
 needlefishes, 49–51, 144, 147
 Nemipteridae, monocle breams, threadfin breams, sea breams, butterfly breams, 79
Nemipterus, breams, 79
Novaculichthys, wrasse, 94
 oilfishes, 110
 Ophichthidae, snake eels, 46
 Ostraciidae, boxfishes, trunkfishes, cowfishes, 123
Ostracion, boxfish, 123
 Paralichthyidae, toothed flounders, 117
 Parapercidae, 99
 parrotfishes, 95, 146
 long-nosed, 95, 146
Parupeneus, goatfishes, 84, 86, 145
 pearl-spotted spinefoot, 109, 146
 pectoral fin, 132, 133
pelamis (Scombridae)', 150
 Pempheridae, sweepers, 87
Pempheris, sweepers, 87
 perches
 crescent, 66
 sea, 74, 76
 terapon, 80
 perches, giant, 64
 pike eels, 45
 Pinguipedidae, sandperches, grubfishes, 99
 pipefishes, 56
 Platacidae, *see* Ehippidae
Platax, batfishes, 88, 145
 Platycephalidae, flatheads, 100
Plectorhinchus, sweetlips, 80, 146
 Plectorhynchidae, *see* Haemulidae
Plectropomus, spotted rock cod, 64, 66, 146
 Pleuronectinae, right-eye flounders, 117
 Plotosidae, catfish, 42
Plotosus, catfishes, 42, 147
Plotosus anguillaris, *see* *Plotosus lineatus*
Plotosus lineatus, striped eel catfish, 42, 147
 Polynemidae, threadfins, 79
 Pomacanthidae, angelfishes, 90
 Pomacentridae, damselfishes or demoiselles, anemonefishes, sergeant-majors, pullers, 90
 Pomadasyidae, *see* Haemulidae
 ponyfishes, 74
 porcupinefish, 125, 145
 porcupinefishes, 125
 Priacanthidae, bigeyes, bullseyes, 67
Pseudobalistes fuscus, brown triggerfish, 123
 puffers, 125
 pullers, 90
 Queensland grouper, 64, 145
 rabbitfishes, 108, 109, 145
 rainbow runners, 68
Rastrelliger, k.o. small mackerel, 115
 ray (generic), 34, 144, 148
 rays, 34, 36
 eagle, 34, 35, 147
 manta, 34
 stingray, 34, 148
 razorfishes, 57
 red rock cod, 67
 reef cod, 64
Remora remora, suckerfish, 128
 remoras, 29, 128
 right-eye flounders, 117
 rock cod, 64–67, 145, 146
 red, 67
 spotted, 66, 146

- roe, 129
- roe, fish eggs, 129
- rudderfishes, 87
- sailfin tang, 102
- sailfishes, 116, 144, 159
- sand basses, 64
- sandperches, 99
- Sardinella*, sardines, 38, 146
- sardines, 38, 146, 147
- sardines and herrings, 37
- Sargocentron*, squirrelfish, 53, 145
- Sargocentron spiniferum*, spinecheek squirrelfish, 53, 145
- Saurida*, lizardfish, 41
- scads, 68
 - big-eyed, 69, 145
- scale of fish, 131
- scales of fish, 131
- Scaridae, parrotfishes, 95
- Scarus*, parrotfishes, 98
- Scomberoides*, leatherskins, 71, 145
- Scomberoides lysan*, giant dart, 71, 145
- Scomberomorus*, Spanish mackerel, 113
- Scomberomorus commerson*, narrow-barred Spanish mackerel, 113, 144
- Scombridae, skipjacks, Spanish mackerels, mackerels, tunas, tunnies, albacores, wahoos, 111, 144
- sea breams, 79
- sea horses, 56
- sea perch, 74, 76
- sea snakes, 261
- sea-pikes, 61
- Selar*, scads, 69, 145
- Selar crumenophthalmus*, big-eyed scad, 69, 145
- sergeant-majors, 90
- Serranidae, rock cod, reef cod, coral cod, groupers etc., 64, 67
- shark (generic), 29, 30, 129, 144, 148, 150
- sharks, 30–33
 - hammerhead, 33
 - tiger, 30, 33
- short-snouted unicornfish, 102, 147
- Siganidae, rabbitfishes, spinefeet, 108
- Siganus*, rabbitfishes, 109, 145
- Siganus argenteus*, silver or rabbit-faced spinefoot, 110
- Siganus punctatus*, gold-spotted spinefoot, 108
- Siganus spinus*, pearl-spotted spinefoot, 109, 146
- silver batfishes, 88
- silver biddies, 79
- silversides, 60
- skipjack tuna, 111, 112, 148
- sleepers, 100
- slimys, 74
- snake eels, 46
- snake mackerels, 110
- snapper sp. or spp., 148
- snappers, 74, 76–78, 144–146
- soldierfishes, 53
- Soleidae, soles, 117
- soles, 117
- Spanish mackerels, 111
 - narrow-barred, 113, 144
- Sphyræna*
 - mature, 61, 144
- Sphyræna*, barracuda, 52, 61–63, 144
- Sphyræna* taxon, incl. *S. barracuda*, great barracuda, 61, 144
- Sphyrænidae, barracudas, sea-pikes, 61
- Sphyrnidae, sharks, 29
- spinecheek squirrelfish, 53, 145
- spinefoot, 108
 - gold-spotted, 108
 - pearl-spotted, 109, 146
- spotted eagle ray, *Aetobatus narinari*, 159
- spotted rock cod, 66, 146
- squirrelfish
 - spinecheek, 53, 145
- squirrelfishes, 53
- stingray barb, 135
- stingrays, 34, 148

stonefishes, 119
 striped eel catfish, 42
 sucker fish, 29
 surgeonfishes, 101, 104, 106, 146, 147
 blue-lined, 103
 white-spotted, 104
 yellowfin, 103
 sweepers, 87
 sweetlips, 80, 146
 swordfishes, 116
Synanceia, stonefish, 119, 145, 148, 150
 Synanceiidae, stonefishes, 119
 Syngnathidae, pipefishes, sea horses, 56
 Synodontidae, lizardfishes, 41
 tang
 convict, 107
 sailfin, 102
 tangs, 101
 tarpons, 36
Terapon jarbua, crescent perch, 66
 terapon perches, 80
 Teraponidae, grunters, terapon perches, 80
 Tetraodontidae, puffers, toadfishes and blowfishes, 125
 threadfin breams, 79
 threadfins, 79
Thunnus albacares, yellowfin tuna, 115, 116
 tiger shark, 30, 33
 toadfishes, 125
 toothed flounders, 117
 trevallies, 31, 68, 69
 triggerfishes, 120–122, 145, 147
 trumpetfishes, 55
 trunkfishes, 123
 tunas, 111
 skipjack, 112, 148
 yellowfin, 115
 tunnies, 111
 tuskfishes, 92
 unicornfish
 long-snouted, 101, 146

 short-snouted, 102, 147
 unicornfishes, 101, 106, 146
Valamugil cunnesius, grey mullet, 58, 145
 wahoos, 111, 113, 144
 whales, 243
 whitebait, 100
 white-spotted surgeonfish, 104
 wrasses, 92, 94
 double-headed Maori, 92, 147
 Maori, 92, 93, 147
 Xiphiidae, 116
 yellowfin surgeonfish, 103
 yellowfin tuna, 115
 Zanclidae, Moorish idols, 100
Zanclus canescens, Moorish idol, 101
Zebrasoma veliferum, sailfin tang, 102

Insects and other creepy-crawlies

Anoplura, lice, 373
 ants, 390–392, 418
 black stinging, 390
 brown, 392
 large, 392
 red, 392, 393
 red tree, 391
 small, 393
 stinging black, 390
 white, 393
 Apoidea, bees, 387
 Araneae, spiders, 408
 bees, 387
 beetles, 400–402
 longicorn, 401
 Bibionidae, March flies, 385, 386
 Blattodea, cockroaches, 402
 bluebottles, 385
 body lice, 375
 borer wasp, 388
 butterflies, 377–379, 418, 419
 caterpillar, 405
 caterpillars, 205, 403, 405
 centipedes, 406, 419
 Ceratopogonidae, biting midges, 383
 Chilopoda, centipedes, 406

- Chironomidae, non-biting midges, 383
- cicadas, 395–397
- cockroaches, 402, 403
- Coleoptera, beetles, 400
- Coleoptera larvae, grubs, 403
- Crickets, 395–397
- Culicidae, mosquitoes, 380
- damselflies, 386
- Diplopoda, millipedes, 406
- Diptera, sandflies, midges, gnats, 383
- dragonflies, 386
- Drosophilidae, fruit flies, 383
- earthworms, 414
- egg of louse, nit, 375
- fireflies, 399, 400, 419
- flies, 385, 417
- flying creature (generic), 416
- Formicidae, ants, 390
- fruit flies, 383
- gnats, 383
- grasshoppers, 395–397, 418
- grub
 - sago, 404
- grubs, 403
- head lice, 374
 - search for, 377
- Hemiptera, cicadas, 395
- Hirudinea, leeches, 411
- horseflies, 385, 386
- houseflies, 385
- Ichneumonidae, wasps, 388
- insects (generic), 416, 421, 450–452
- Isoptera, termites, 393
- Lampyridae, fireflies, 399
- larvae
 - Coleoptera, 403
 - Lepidoptera, 403
- leeches, 411
- Lepidoptera, butterflies, 377
- Lepidoptera larvae, caterpillars, 403
- lice, 373
 - body, 375
 - head, 374
 - search head for, 377
- longicorn beetle, 401
- louse
 - egg of, nit, 375
- maggoty, 415
- mantises, 397
 - praying, 398
- Mantodea, mantises, 397
- March flies, 385, 386
- mason wasps, 418
- midges, 383, 384
 - biting, 383
 - non-biting, 383
- millipedes, 406, 407
 - phosphorescent, 407
- mosquitoes, 380–383, 418
 - buzz, 383
- moths, 380
- Muscidae, houseflies, bluebottles, 385
- nit, louse egg, 375
- Odonata, dragonflies, damselflies, 386
- Orthoptera, grasshoppers, crickets, 395
 - orthopterous insect, 395, 397
- Pediculidae, lice, 373
- Phasmatodea, stick insects, 397
- praying mantis, 398
- Psychodidae, sandflies, 383
- red tree ant, 391
- sago grub, 404
- sandflies, 383–385, 418
- Scorpiones, scorpions, 408
- scorpions, 408
- search for head lice, 377
- Simuliidae, gnats, 383
- Sphecidae, mud-dauber wasp, mason wasp, 388
- spiders, 408–411, 418
- stick insects, 396–398
- stinging black ant, 390
- Tabanidae, horseflies, 385, 386
- Tephritidae, fruit flies, 383
- termites, 393
- tree ants, 391
- Vespidae, paper wasps, 388
- wasp
 - borer, 388

wasps, 388–390, 418

mason, 418

white ants, 393

worms, 413, 414

worms generic, 412

Mammals, reptiles, amphibians

Acrobatidae, little feather-tailed

possums, 226

agile wallaby, 222

amphibians, 262

animals, parts of, 265

tail, 267

teeth, 266

turtle shell, 268

tusks, 266

ant-eaters, spiny, 220

bandicoots, 220, 227, 228

bat, greater bare-backed, 234

bats, 234–236

fruit, 234–236

insectivorous, 234, 236

black rat, 230

brown rat, 230

bullfrogs, 265

Burramyidae, pygmy possums, 226

Canidae, including dogs, 240

canine tooth, 266

Canis, dogs, 240

Caretta caretta, loggerhead turtle, 247

Chelonia mydas, green turtle, 247,
251

Chelonidae, marine turtles, 247

common rat, 230

common wild pig, 237, 238

crocodiles, 251, 252

Crocodylidae, crocodiles, 251

Crocodylus novaeguineae, New
Guinea crocodile, 251

Crocodylus porosus, estuarine or
saltwater crocodile, 251

cuscuses, 220, 224–226

grey, 221

northern common, 221

spotted, 224

Dasyuridae, marsupial carnivores,
229

Dasyuridae, marsupial carnivores:

mice, quolls etc, 221

Delphinidae, dolphins, 245

Dendrolagus, tree kangaroos, 223

Dendrolagus dorianus, Doria's tree
kangaroo, 223

Dendrolagus goodfellowi,

Goodfellow's tree kangaroo, 223

Dendrolagus inustus, grizzled tree
kangaroo, 223

Dendrolagus matschiei, Huon tree
kangaroo, 223

Dendrolagus pulcherrimus,

Golden-mantled tree kangaroo,
223

Dendrolagus scottae, Scott's tree
kangaroo, 223

Dermochelys coriacea, leatherback
turtle, 247, 251

Dobsonia moluccensis, greater
bare-backed bat, 234

dogs, 240–242

dolphins, 245

Dorcopsis, small rainforest wallabies,
221

Dorcopsulus, small montane
rainforest wallabies, 221

Doria's tree kangaroo, 223

dugong, 246

Dugong dugon, dugong, 246

Dugongidae, including dugongs, 246

echidnas, 229

long-beaked, 229

short-beaked, 229

Echymipera, common or spiny

bandicoot, long-nosed bandicoot,
227

Elapidae, sea snakes, 261

Eretmochelys imbricata, hawksbill
turtle, 247, 250

flying foxes, 234–236

frogs, 263–265

fruit bats, 234–236

geckos, 256

Gekkonidae, geckos, 256

gliders, 220

- sugar, 226
- Golden-mantled tree kangaroo, 223
- Goodfellow's tree kangaroo, 223
- greater bare-backed bat, 234
- grey cuscus, 221
- grizzled tree kangaroo, 223
- Huon tree kangaroo, 223
- iguanas, 255
- Iguanidae, iguanas, 255
- insectivorous bats, 234, 236
- kangaroos, tree, 220, 223
- large monitor lizard, 254
- Line
 - Lydekker's, 217
 - Wallace, 217
- little feather-tailed possums, 226
- lizards, 253–259
 - geckos, 256
 - iguanas, 255
 - monitor, 253–255
 - skinks, 257, 258
- long-beaked echidna, 229
- Lydekker's Line, 217
- Macropodidae, wallabies, 221
- Macropus agilis*, agile wallaby, 221, 222
- mammals
 - aquatic, 243
 - indigenous terrestrial, 220
 - introduced terrestrial, 237
- marine turtles, 247
- marsupial carnivores, 229
- marsupial rat, 220
- Megachiroptera, megabats, fruit bats,
 - flying foxes, 234
- mice, 230, 232, 233
- Microchiroptera, microbats,
 - insectivorous bats, 234
- Microperoryctes*, mouse bandicoot,
 - striped bandicoot, 227
- monitor lizards, 253–255
- monitors, 253
- monotremes, 229
- Muridae, rats, 229
- Mus musculus*, mouse, 230
- northern common cuscus, 221
- northern pademelon, 221
- Norwegian rat, 230
- Pacific rat, 230, 231, 233
- pademelons, scrub wallabies, 221
 - northern, 221
- Peroryctes*, giant bandicoot, Raffray's
 - bandicoot, 227
- Peroryctidae, bandicoots, 227
- Petauridae, sugar gliders, striped
 - possums and long-fingered
 - striped trioks, 226
- Petaurus breviceps*, sugar glider, 226
- Phalanger orientalis*, northern
 - common cuscus or grey cuscus, 221
- Phalangeridae, cuscuses, 224
- Phascogale, *see* Dasyuridae
- pigs, 237–239
 - common wild, 237, 238
- pig's tusk, 266
- possums, 220, 226
 - pygmy, 220, 226
 - ringtail, 220, 226
- Pseudocheiridae, ringtail possums, 226
- Pteropodidae, fruit bats, flying foxes, 234
- Pteropus*, fruit bats, flying foxes, 235, 236
- pygmy possums, 220, 226
- rats, 229, 232–234
 - Asian house, 230, 231
 - black, 230
 - brown, 230
 - common, 230
 - marsupial, 220
 - Norwegian, 230
 - Pacific, 230, 231, 233
 - spiny, 230
- Rattus exulans*, Pacific rat, 230, 231, 233
- Rattus norvegicus*, Norwegian rat,
 - brown rat, common rat, 230
- Rattus praetor*, spiny rat, 230
- Rattus rattus*, black rat, 230
- Rattus tanezumi*, 231

- Rattus tanezumi*, Asian house rat, 230
- reptiles, 247
- ringtail possums, 220, 226
- Scincidae, skinks, 257
- Scott's tree kangaroo, 223
- sea snakes, 261
- Serpentes, snakes, 259
- shell of turtle, 268
- short-beaked echidna, 229
- skinks, 257
- snakes, 259, 260
 - sea, 261
- sow (female pig), 239
- Spilocuscus maculatus*, spotted
 - cuscus, 221, 224
- spiny ant-eaters, 220
- spiny rat, 230
- spotted cuscus, 224
- sugar gliders, 226
- Suidae, pigs and hogs, 237
- Sus*, pigs, 237
- Sus scrofa*, common wild pig, 237, 238
- Tachyglossidae, echidnas, 229
- Tachyglossus*, short-beaked echidna, 229
- tadpoles, 265
- tail, 267
- Thylogale*, scrub wallabies or pademelons, 221
- Thylogale browni*, northern pademelon, 221
- tooth, canine, 266
- tree kangaroos, 223
 - Doria's, 223
 - Golden-mantled, 223
 - Goodfellow's, 223
 - grizzled, 223
 - Huon, 223
 - Scott's, 223
- turtle (generic), 249
- turtle shell, 268
- turtles, 247, 249
 - green, 247, 251
 - hawksbill, 247, 250
 - leatherback, 247, 251
 - loggerhead, 247
- tusk, 266
 - pig's, 266
- Varanidae, monitors, 253
- Varanus indicus*, large monitor lizard, 254
- wallabies, 220, 221
 - agile, 221, 222
 - sandy, 221
 - scrub, 221
 - small montane rainforest, 221
 - small rainforest, 221
- Wallace Line, 217
- whales, 243, 244
- Zaglossus*, long-beaked echidna, 229